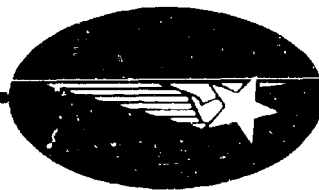


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THERMAL RADIATION PHENOMENA

VOL. 3

TABLES OF RADIATIVE PROPERTIES OF AIR

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THERMAL RADIATION PHENOMENA

Tables of Radiative Properties of Air

Edited by

Henry Aroeste and John L. Magee

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FOREWORD

"Thermal radiation" is electromagnetic radiation emitted by matter in a state of thermal excitation. The energy density of such radiation in an enclosure at constant temperature is given by the well known Planck formula. The importance of thermal radiation in physical problems increases as the temperature is raised; at moderate temperatures (say, thousands of degrees Kelvin) its role is primarily one of transmitting energy, whereas at high temperatures (say, millions of degrees Kelvin) the energy density of the radiation field itself becomes important as well. If thermal radiation must be considered explicitly in a problem, the radiative properties of the matter must be known. In the simplest order of approximation, it can be assumed that the matter is in thermodynamic equilibrium "locally" (a condition called local thermodynamic equilibrium, or LTE), and all of the necessary radiative properties can be defined, at least in principle. Of course whenever thermal radiation must be considered, the medium which contains it inevitably has pressure and density gradients and the treatment requires the use of hydrodynamics. Hydrodynamics with explicit consideration of thermal radiation is called "radiation hydrodynamics".

In the past twenty years or so, many radiation hydrodynamic problems involving air have been studied. In this work a great deal of effort has gone into calculations of the equilibrium properties of air. Both thermodynamic and radiative properties have been calculated. It has been generally believed that the basic theory is well enough understood that such calculations yield valid results, and the limited experimental checks which are possible seem to support this hypothesis. The advantage of having sets of tables which are entirely calculated is evident: the calculated quantities are self-consistent on the basis of some set of assumptions, and they can later be improved if calculational techniques are improved, or if better assumptions can be made.

The origin of this set of books was in the desire of a number of persons interested in the radiation hydrodynamics of air to have a good source of reliable information on basic air properties. A series of books dealing with both theoretical and practical aspects was envisaged. As the series materialized, it was thought appropriate to devote the first three volumes to the equilibrium properties of air. They are:

The Equilibrium Thermodynamic Properties of Air,
by F. R. Gilmore

The Radiative Properties of Heated Air,
by B. H. Armstrong and R. W. Nicholls

Tables of Radiative Properties of Air,
by Lockheed Staff

The first volume contains a set of tables along with a detailed discussion of the basic models and techniques used for their computation. Because of the size of the related radiative tables and text, two volumes were considered necessary. The first contains the text, and the second the tables. It is hoped that these volumes will be widely useful, but because of the emphasis on very high temperatures it is clear that they will be most attractive to those concerned with nuclear weapons phenomenology, reentry vehicles, etc.

Our understanding of kinetic phenomena, long known to be important and at present in a state of rapid growth, is not as easy to assess as are equilibrium properties. Severe limitations had to be placed on choice of material. One volume is offered at this time:

Excitation and Non Equilibrium Phenomena,
by Landshoff, et al.

It provides material on the more important processes involved in the excitation of air, criteria for the validity of LTE and special radiative effects.

A discussion of radiation hydrodynamics was felt to be necessary and another volume was planned to deal with this topic:

Radiation Hydrodynamics of High Temperature Air,
by Landshoff, Hillendahl, et al.

It is not ready for publication at this time. It will review the basic theory of radiation hydrodynamics and discuss the application to fireballs in the atmosphere.

The choice of material for these last two volumes was made with an eye to the needs of the principal users of the other three volumes.

Most of the work on which these volumes are based was supported by the United States Government through various agencies of the Defense Department and the Atomic Energy Commission. The actual preparation of the volumes was largely supported by the Defense Atomic Support Agency.

We are indebted to many authors and organizations for assistance and we gratefully acknowledge their cooperation. We are particularly grateful to the RAND Corporation for permission to use works of F. R. Gilmore and H. L. Brode and to the IBM Corporation for permission to use some of the work of B. H. Armstrong. Most of the other authors are employed by the Lockheed Missiles and Space Company, in some cases as consultants.

Finally we would like to acknowledge the key role of Dr. R. E. Meyerott of LMSC in all of this effort, from the initial conception to its realization. We are particularly grateful to him for his constant advice and encouragement.

Criticism and constructive suggestions are invited from all readers of these books. We understand that much remains to be done in this field, and we hope that the efforts represented by this work will be a stimulus to its development.

The Editors

J. L. Magee

H. Aroeste

Preface

This volume presents tables of the equilibrium radiative properties of air and its constituents for a wide range of temperatures and densities. The information contained in such tables is of necessity a combination of experimental fact and theoretical computation. Related theory is discussed by B.H. Armstrong and R.W. Nicholls in a companion volume of this series.

We have attempted to provide an up-to-date compendium which will be useful for a wide variety of scientific and engineering applications. This field is developing in both experimental technique and theoretical understanding, and any tables of radiative properties must be considered tentative. Revisions will be made from time to time.

The work is divided into five parts: Part A is a summary section designed to give an overview of the field. Some of the data are presented in semi-schematic form and should not be used for quantitative work. Part B gives basic data and references used in the preparation of the subsequent parts. Finally, parts C, D and E contain the absorption coefficients in the ranges 1000°K to $24,000^{\circ}\text{K}$ (Part C), 1 eV to 20 eV (Part D), and above 20 eV (Part E).

We would like to thank the contributors for their cooperation in assembling the data for this volume.

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Tables of Radiative Properties of Air

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A. Summary Figures

From the large amount of data on absorption coefficients of heated air which are presented in the tables, we have constructed a few representative graphs. These should help the reader to acquire a better understanding of the relative importance of the various parameters on which these results depend. The first set of curves (Fig. 1, 2, 3, 4) shows the absorption coefficient as a function of photon energy for two densities and temperatures. The low temperature curves (Fig. 1, 2) are characterized by a very steep increase with photon energy. Essentially, the air transmits every photon in the low energy part and absorbs every photon in the high energy part. At the higher temperatures (Fig. 3, 4) the low energy photons are absorbed along with the high energy photons. The next two curves (Fig. 5, 6) show the temperature dependence of μ for two densities and various photon energies. The photon energy is given as a parameter (in eV). These graphs show the crossing over of the various curves in the vicinity of $kT = 1$ eV. The large absorption at a photon energy of 8 eV and at the low temperature end is due to the Schumann-Runge continuum. The two topographic type representations of μ in the temperature photon energy plane (Fig. 7, 8) permit the viewer to visualize the overall behavior. Strongly absorbing regions are heavily shaded. The crossing short lines represent a saddle point. The parallel lines at 45° show where the energy of the blackbody spectrum lies at a given temperature. Fig. 7 is at normal air density, and Fig. 8 is at 10^{-3} normal. The variation of Planck Mean Opacity with temperature is shown in Fig. 9. All the curves show that the Planck function has a maximum at 10 eV, and the slope of the curves is very

steep, indicating the rapid change of the Planck function with temperature. The next curve (Fig. 10) shows the temperature dependence of the Rosseland Mean Opacity for five densities. The slowly changing slope of the curves around 3 to 12 eV indicates that the Rosseland function is a smoothly varying function of temperature, but at low and high temperatures the change is more abrupt.

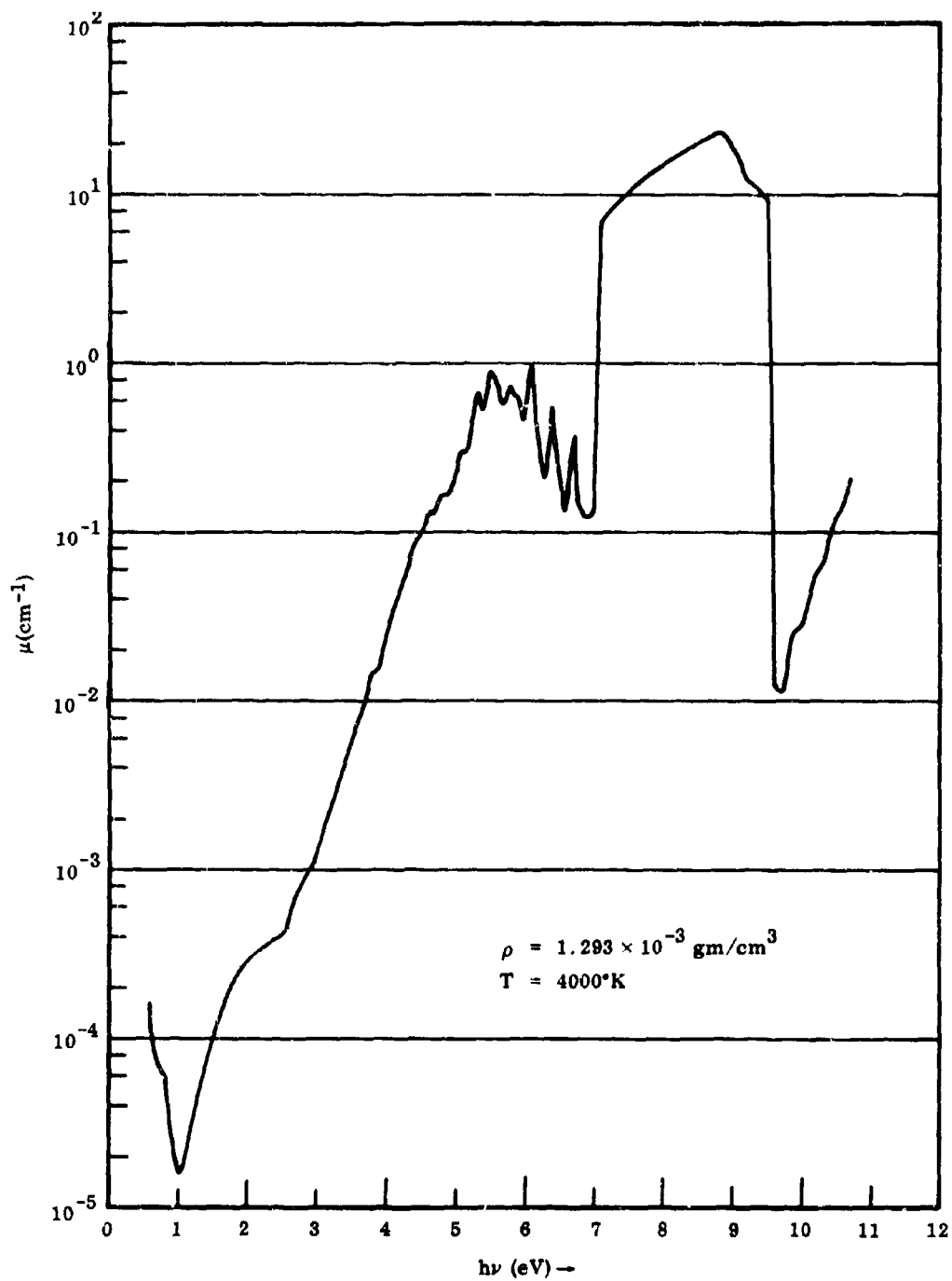


Fig. 1 Absorption Coefficient of Air as a Function of the Photon Energy: Density, $1.293 \times 10^{-3} \text{ gm/cm}^3$; Temperature, 4000°K

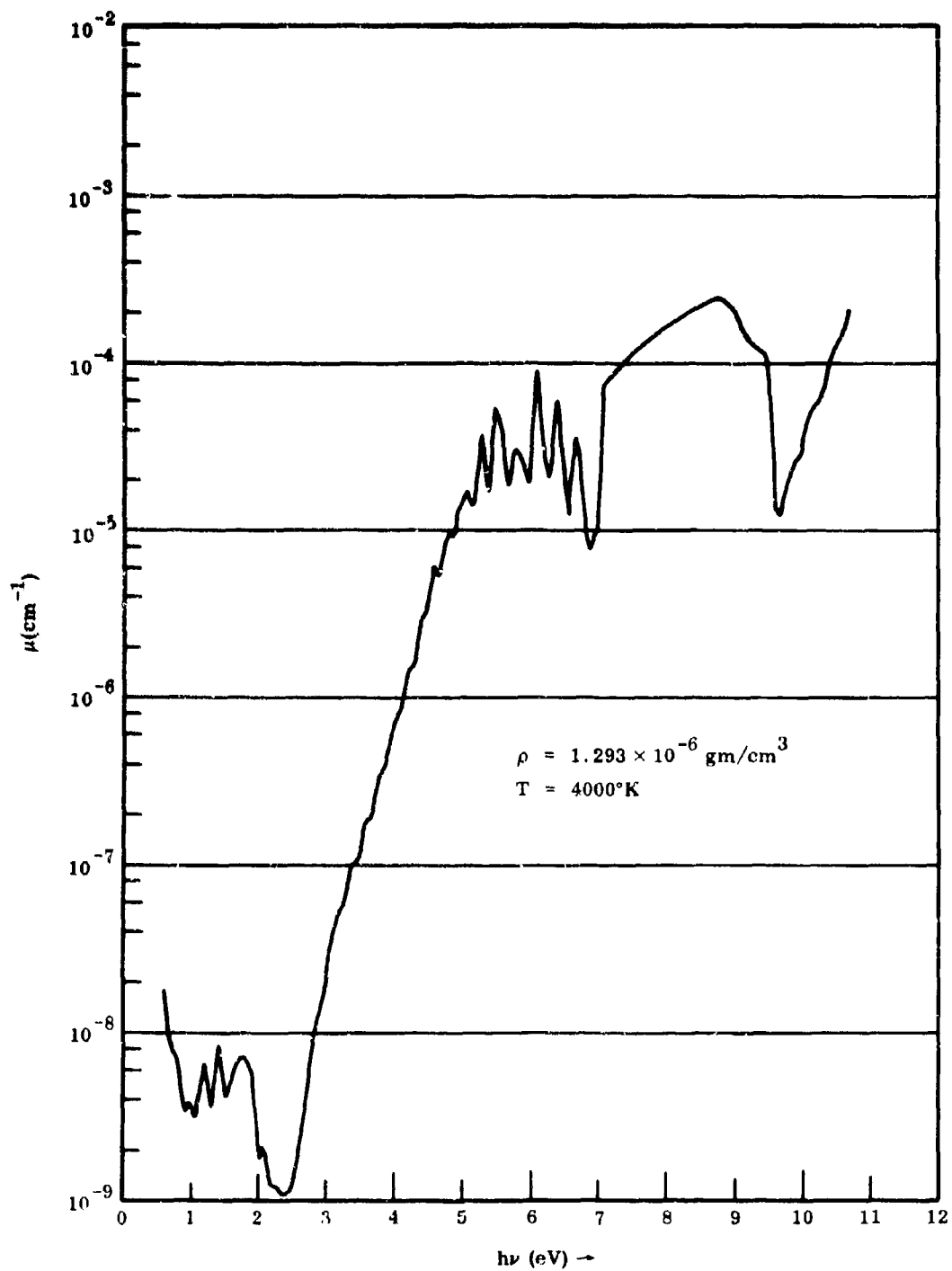


Fig. 2 Absorption Coefficient of Air as a Function of the Photon Energy: Density, $1.293 \times 10^{-6} \text{ gm/cm}^3$; Temperature, 4000°K

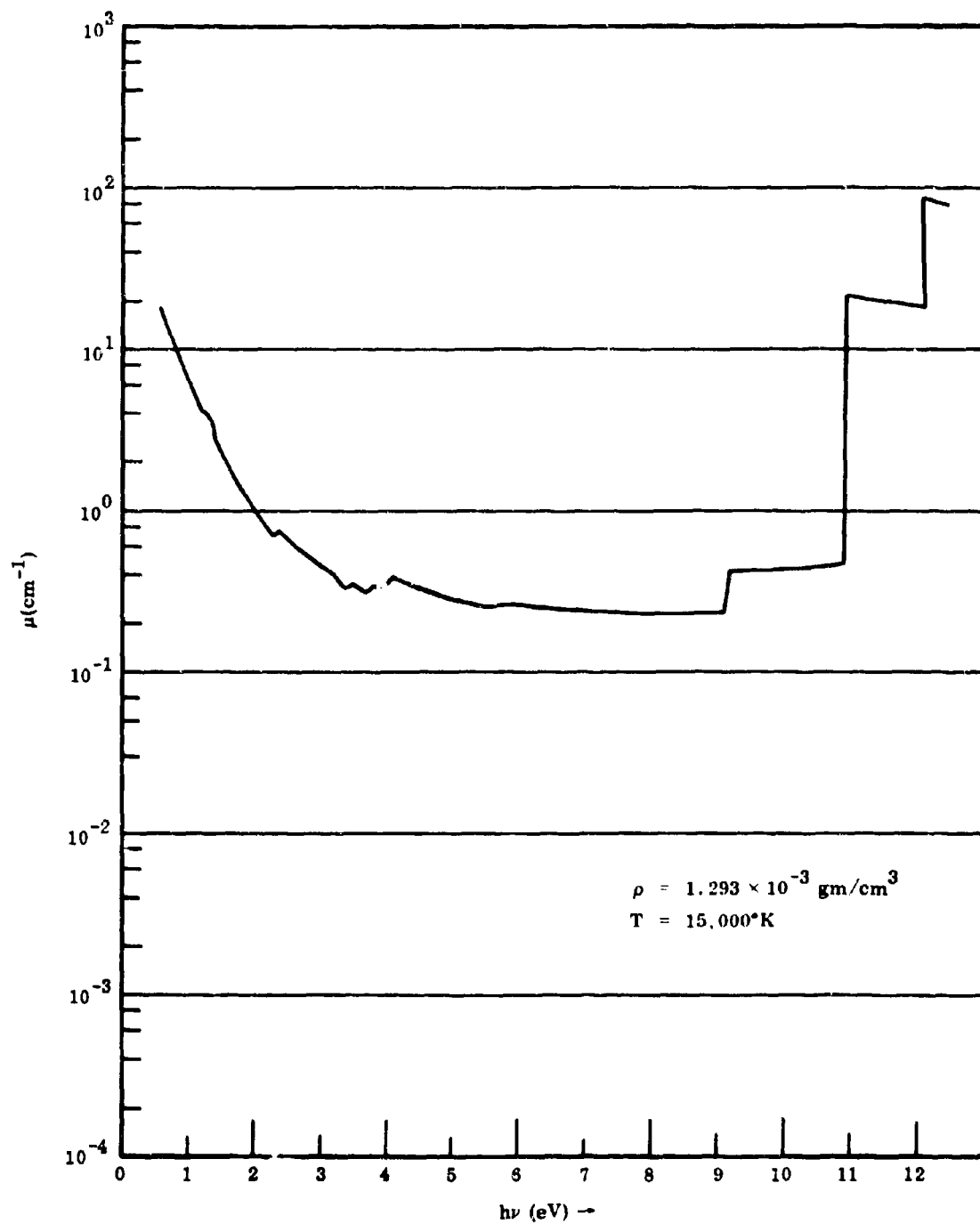


Fig. 3 Absorption Coefficient of Air as a Function of the Photon Energy: Density, $1.293 \times 10^{-3} \text{ gm/cm}^3$; Temperature $15,000^\circ\text{K}$

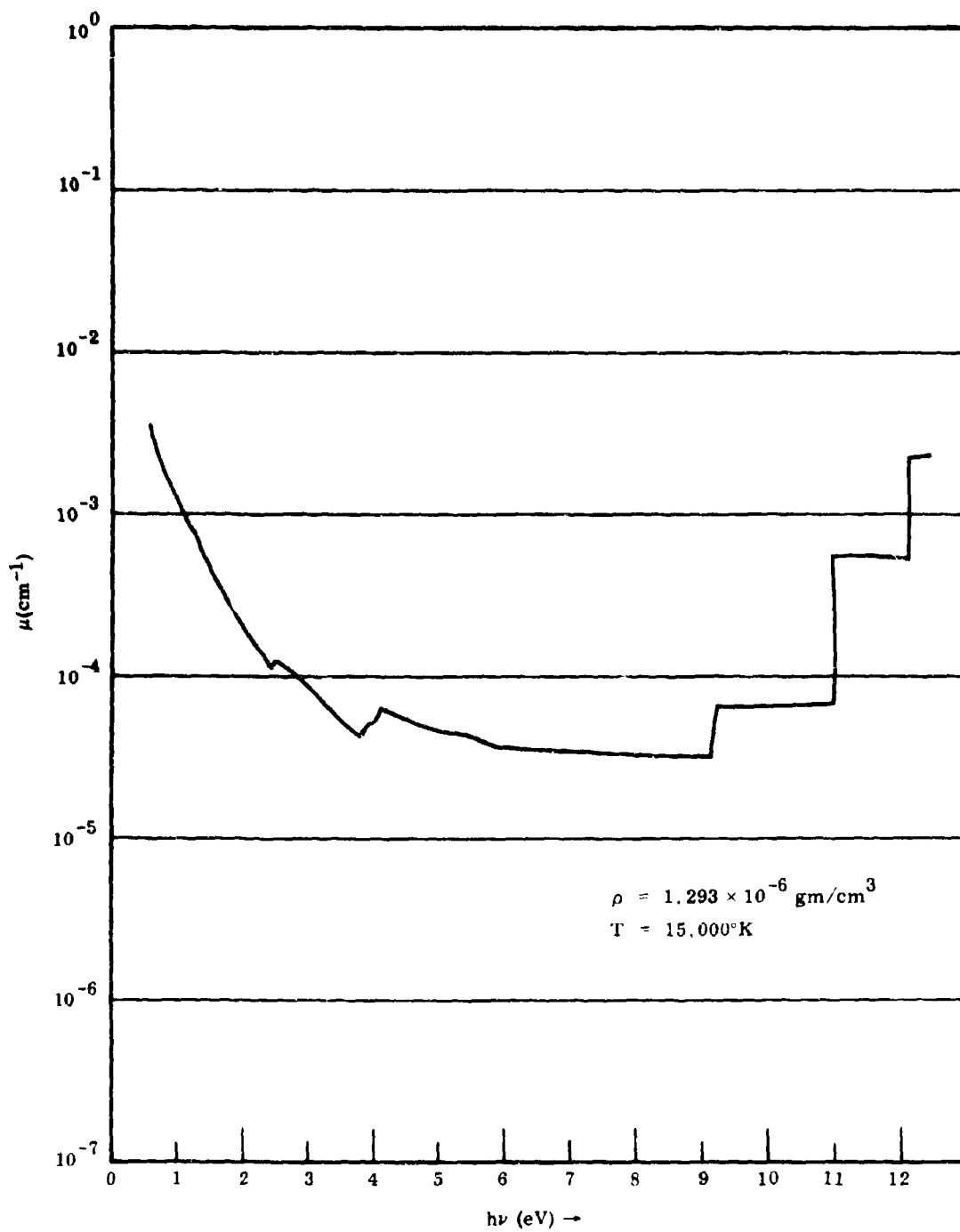


Fig. 4 Absorption Coefficient of Air as a Function of the Photon Energy: Density, $1.293 \times 10^{-6} \text{ gm/cm}^3$; Temperature $15,000^\circ\text{K}$

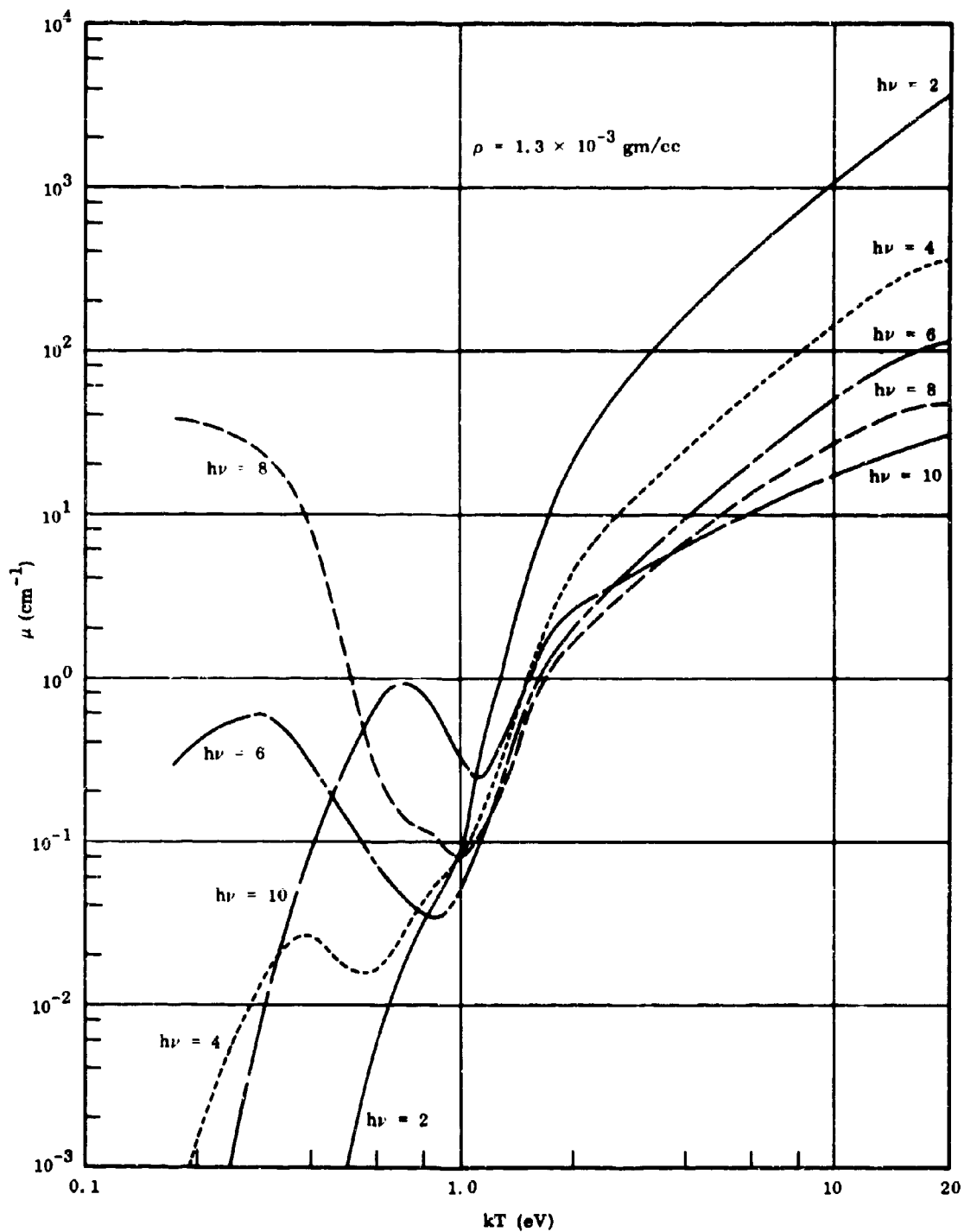


Fig. 5 Absorption Coefficient of Air at Specified Photon Energies as a Function of Temperature: Density, $1.3 \times 10^{-3} \text{ gm/cm}^3$

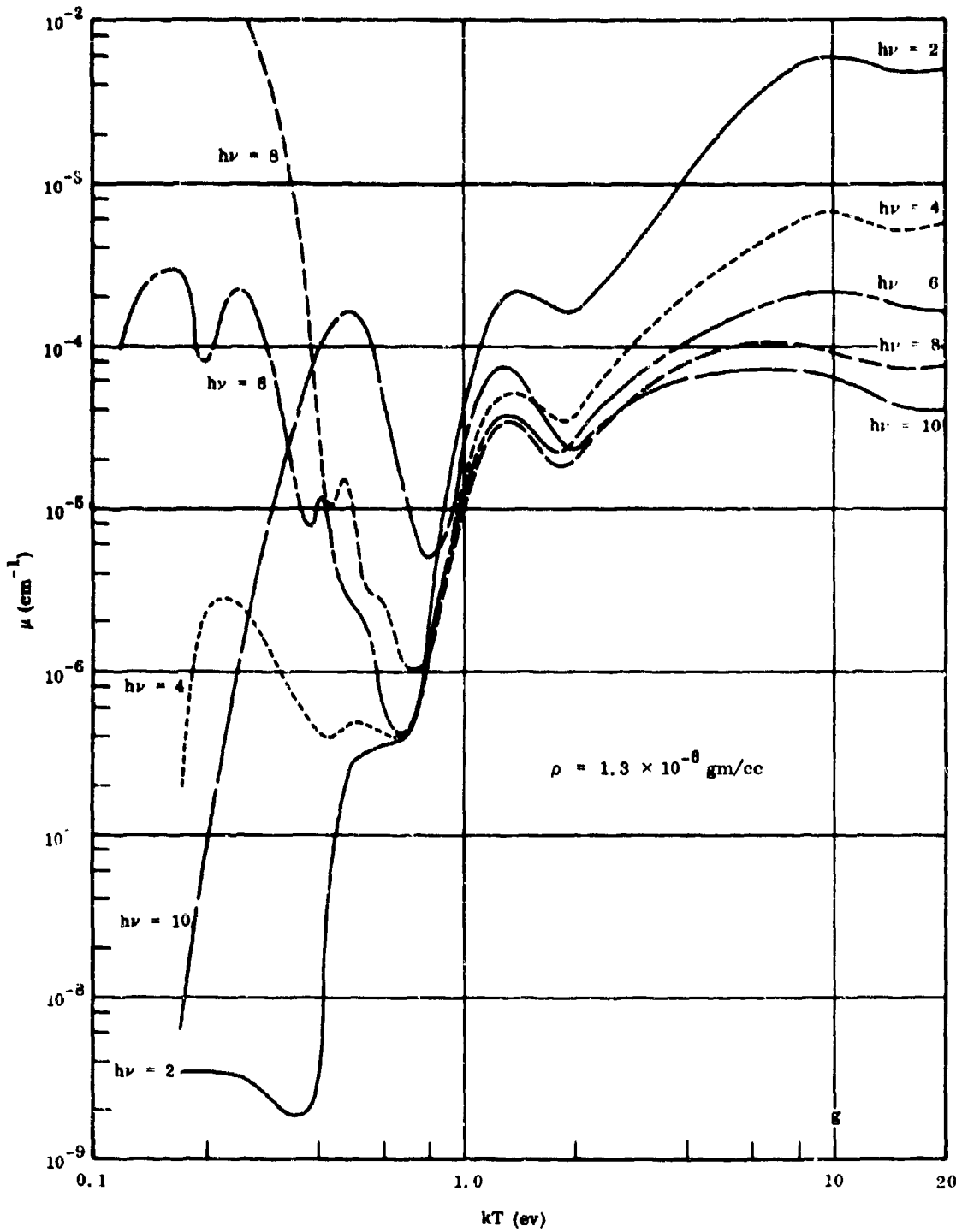


Fig. 6 Absorption Coefficient of Air at Specified Photon Energies as a Function of Temperature: Density, $1.3 \times 10^{-6} \text{ gm/cm}^3$

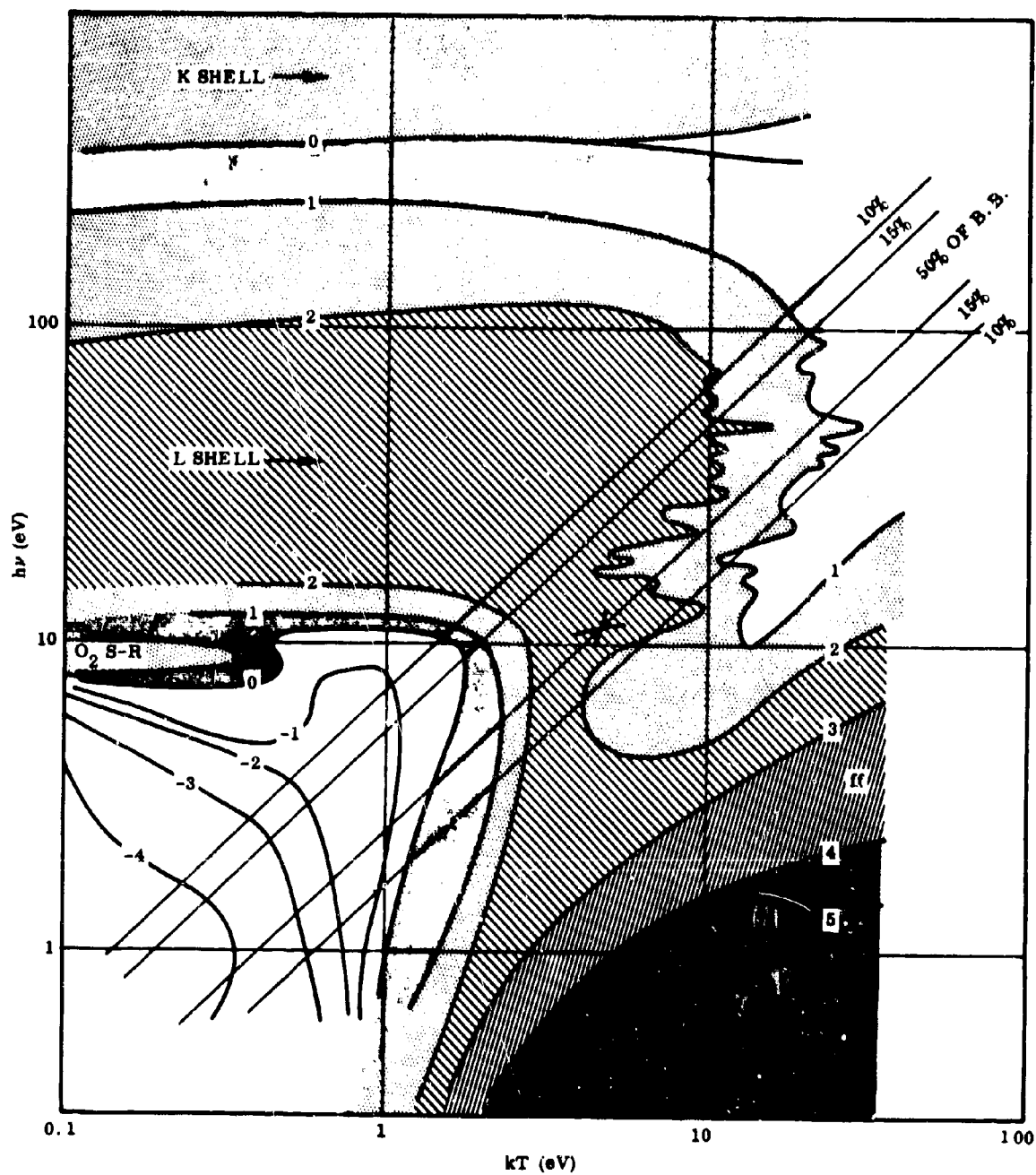


Fig. 7 Topographic Representation of Absorption Coefficient in the Temperature-Energy Plane for Normal Density Air. A number (n) on the niveau line indicates that μ is equal to 10^n cm^{-1} .

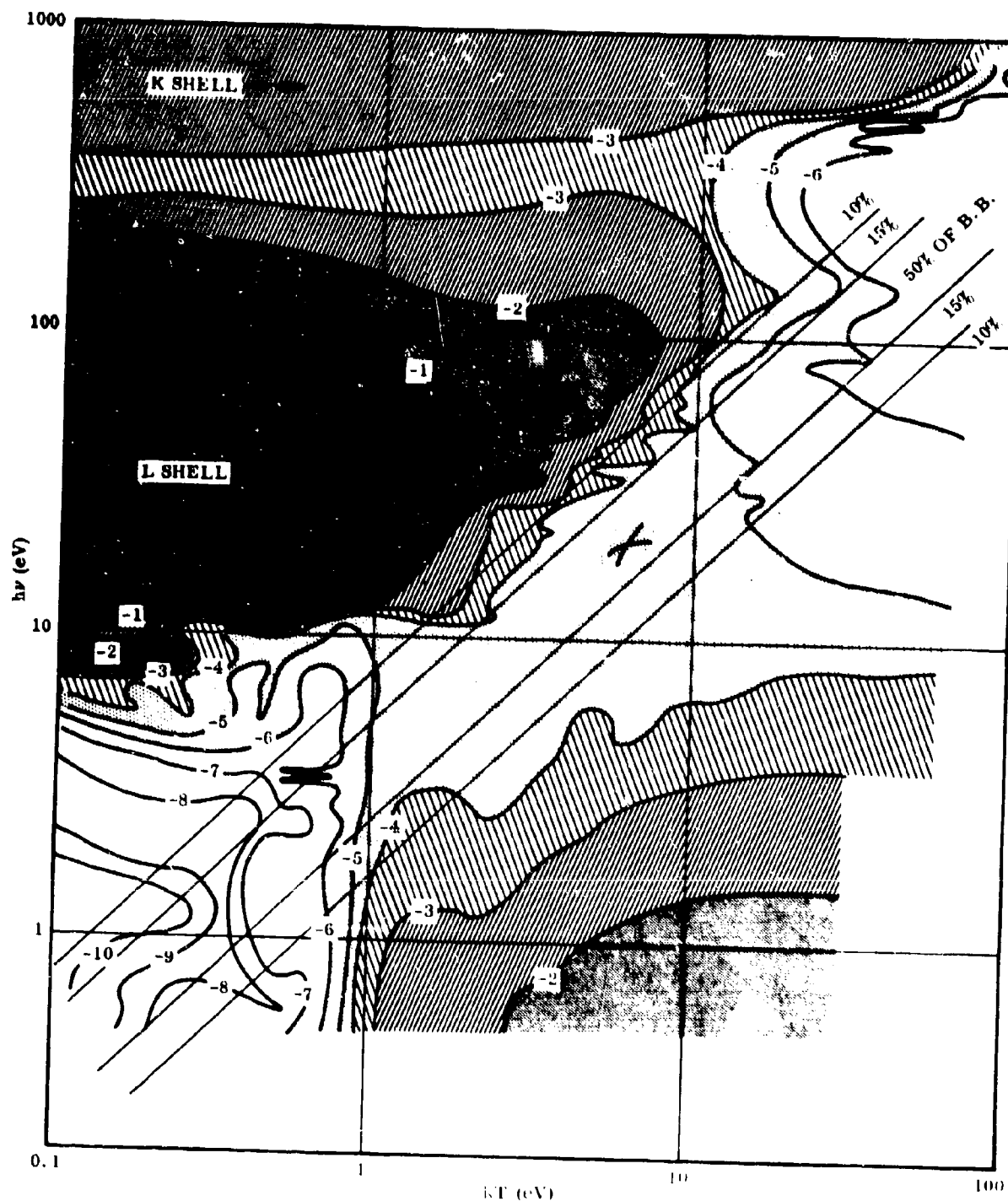


Fig. 8 Topographic Representation of Absorption Coefficient the Temperature-Energy Plane for 10^{-3} Normal Density Air. A number (n) on the niveau line indicates that μ is equal to 10^n cm^{-1} .

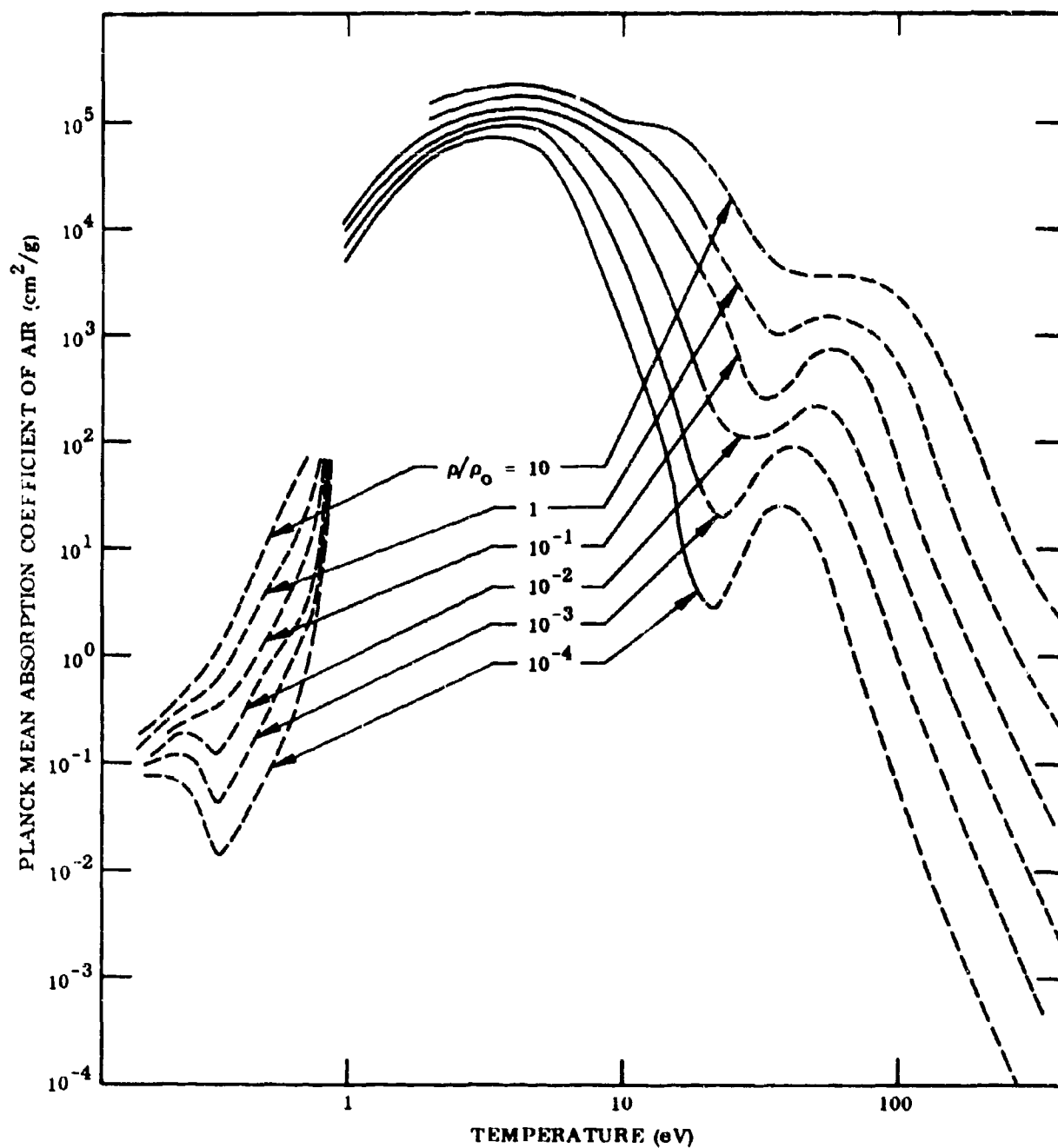


Fig. 9 Planck Mean Absorption Coefficient of Air as a Function of Temperature for Various Density Ratios. The dashed lines below 1 eV represent results obtained by Churchill (1966); the solid lines are from Armstrong, Johnston and Kelly, the dashed lines above 20 eV are from Freeman (1963). The gap at 1 eV represents a gap in our knowledge because atomic line contributions have not been included in the dashed curves.

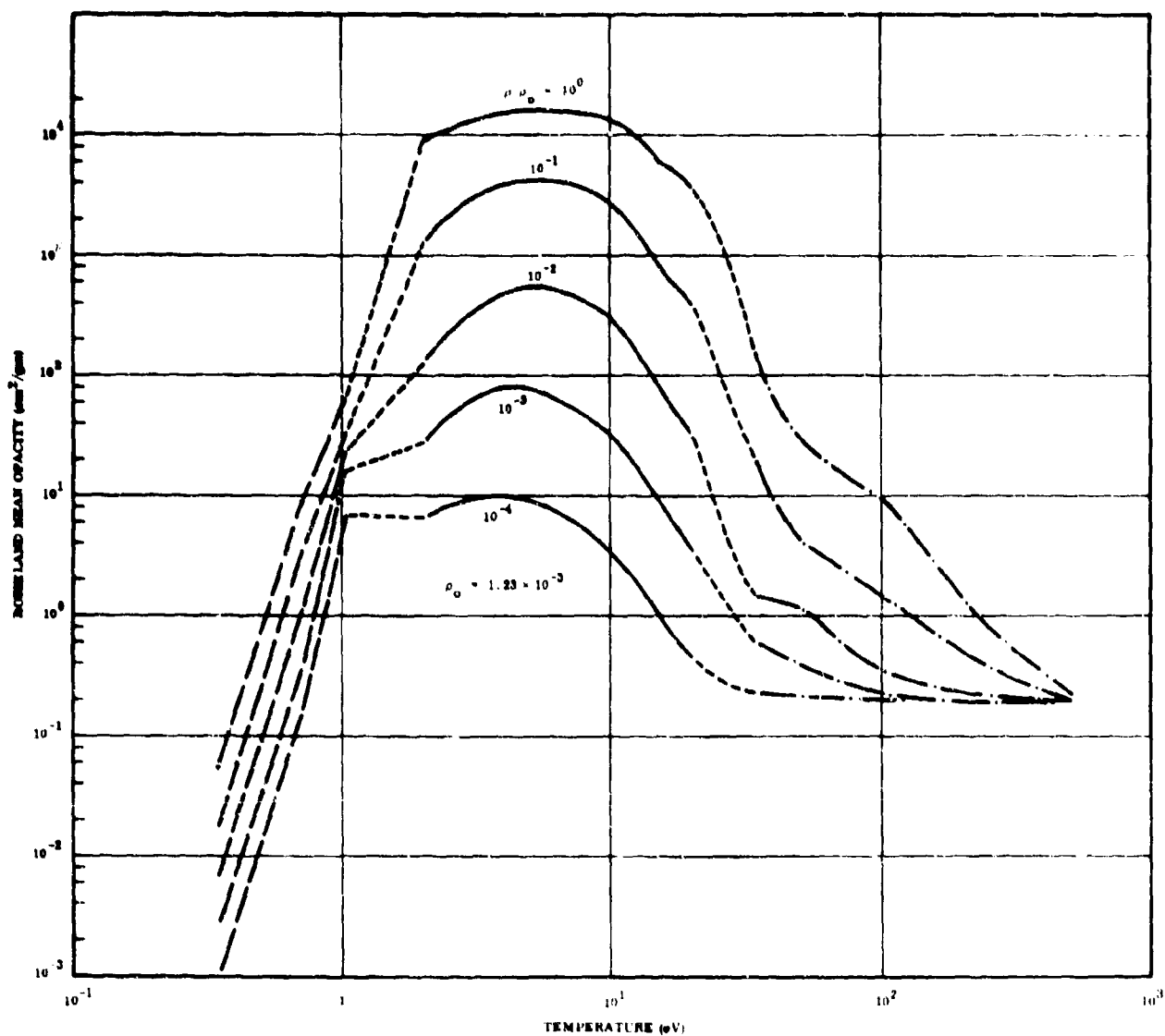


Fig. 10 Rosseland Mean Opacity of Air as a Function of Temperature for Various Density Ratios. The (— · —) Lines Represent Values Calculated by Churchill (1966); the Solid Lines are From Armstrong, Johnston, and Kelly (1965); the (— · —) Lines are From Freeman (1963); and the (---) Lines are Connecting Lines Between the Various Calculations.

References

Armstrong, B. H. , R. R. Johnston, and P. S. Kelly.
LMSC Contract AF 29(601)-5006, Air Force Weapons
Laboratory Report No. AFWL-TR-65-17, 1965.

**Churchill, D.R. , this report, Section II. C. of Tables of
Air Properties, 1966.**

**Freeman, B. E. , Opacity and Absorption Coefficients for Ionic
Air, Air Force Special Weapons Center Contract
AF29(601)-6105, GAMD-4566, 1963.**

B. Basic Data

For a discussion of references to basic atomic data and the use thereof, please see Armstrong and Nicholls (1966). The following tables of basic molecular data list spectroscopic constants for those band systems of diatomic molecules which have been included in the current calculations of heated air absorption coefficients. The values listed for these constants are those which were used in the theoretical reconstruction of the corresponding band system. Most of these were taken directly from the literature and, in general, they were obtained experimentally. In those cases where no experimental values were available they were estimated with the aid of the basic equations of spectroscopy. As a single exception to the general procedure, all the constants listed for the $X^3\Sigma$ state of O_2 in Table 3 were calculated with the aid of formulas and constants given in Herzberg (1950). This state is described extremely well by the constants so obtained.

Whenever both of the electronic states involved in a transition are singlet or display only a small amount of splitting, an indication of the energy separation of the two states may be given by a single number such as ν_{00} , which is the transition frequency or energy between vibrationless-rotationless levels of these states. However, when the splitting is relatively large, such as in the case of a $^2\Pi$ state with large spin-orbit coupling, such a single number is not as meaningful although it may still give a convenient estimate of an "average" separation. Table 1 gives either ν_{00} or ν_e (the energy separation of the potential minima of the two states) for the band systems under consideration. Succeeding tables list the vibrational term $G(v)$ as referred either to the $v = 0$ level or to the potential

minima as specified by the subscript attached to the G , viz. $G_0'(v)$ or $G_1(v)$, $G_2(v)$. Also, B_v and D_v are those constants used to generate the rotational manifold for the v^{th} vibrational level (along with the coupling constant Y_v).

The first fourteen tables contain those constants which are necessary to compute the line frequencies for all the band systems. Tables 15 through 20 give those values of the band strength and related quantities which are required to calculate the line intensities for six of the band systems. The "band strength" is given in the column labelled $p_{v',v}$ and is given, as noted, in atomic units. The corresponding band f-numbers and Einstein A's are also tabulated. Table 21 lists the matrix elements used to compute the intensities for the one vibration-rotation band system which was included. Since no direct intensity measurements were available for the N_2 Birge-Hopfield #1 bands, the band strength was obtained from an assumed constant f-number of 0.1 and calculated Franck-Condon factors which are given in Table 22.

References

- Armstrong, B. and R. Nicholls, The Radiative Properties of Heated Air, Thermal Radiation Phenomena, Lockheed, Palo Alto, 1966.
- Herzberg, G., Spectra of Diatomic Molecules, Van Nostrand, Princeton, 1950.

Table 1. Molecular Band Systems Included in the Calculation of the Absorption Coefficient of Heated Air.

Molecular Species and System Name	Spectroscopic Notation	ν_{00} (cm^{-1})	Spectral Region Spanned by Systems (cm^{-1})	No. of Lines Included
O ₂ Schumann-Runge	$B^3\Sigma_u^- - X^3\Sigma_g^-$	49,357.5	56,851.51 - 20,081.01	4,611
N ₂ first positive	$B^3\Pi_g - A^3\Sigma_u^-$	9,557.0	19,471.63 - 2,673.18	48,785
N ₂ second positive	$C^3\Pi_u - B^3\Pi_g$	29,670.6	36,365.66 - 20,323.54	20,369
N ₂ Birge-Hopfield	$b'^1\Sigma_u^+ - X^1\Sigma_g^+$	103,672.1	107,981.86 - 46,678.12	38,983
N ₂ ⁺ first negative	$B^2\Sigma_u^+ - X^2\Sigma_g^+$	25,566.0	31,731.58 - 19,121.38	3,216
NO β	$B^2\Pi - X^2\Pi$	45,868.7 [*]	51,410.52 - 19,426.22	18,518
NO γ	$A^2\Sigma - X^2\Pi$	43,905.2 [†]	61,615.35 - 31,534.58	31,429
NO vib.-rot.	$X^2\Pi - X^2\Pi$	--	9,131.35 - 1,036.91	25,610

* This is an effective ν_e for the NO beta bands.

† This is also an effective ν_e and may be reproduced from the tables of Herzberg (1950) by subtracting the average T_e of the lower ($^2\Pi$) state from the T_e of the upper ($^2\Sigma$) state.

Table 2. Continuous Contributors (in the amount of about 1% or more) to the Absorption Coefficient of Heated Air at Relative Density $\rho/\rho_0 = 10^{-3}$

System	Spectral Region of Importance eV (cm^{-1})	Temperature Region of Importance °K
O ₂ Schumann-Runge Continuum	~ 7.1 - 9.5 eV (57,000 - 77,000 cm^{-1})	1,000 - 10,000
NO ₂	~ 1.1 - 5.1 eV (9,000 - 41,000 cm^{-1})	1,000 - 5,000
O ⁻ photodetachment	~ 1.5 - 10.7 eV (12,100 - 86,000 cm^{-1})	3,000 - 15,000
N photoionization	Entire Range of Calculation	T ≥ 7,000
O photoionization	Entire Range of Calculation	T ≥ 7,000
Free-free in presence of ions	<~ 0.8 eV (6,450 cm^{-1}) at 6,000°K; Entire Range of Calculation at 18,000°K.	T ≥ 6,000

Table 3. Spectroscopic Constants for the $X^3\Sigma_g^-$ State of O_2

v	$G_O(v)$ (cm^{-1})	B_v (cm^{-1})	D_v (10^{-6}cm^{-1})
0	0.0	1.438	4.913
1	1556.4	1.422	4.825
2	3089.1	1.406	4.737
3	4598.3	1.390	4.649
4	6084.4	1.375	4.561
5	7547.4	1.359	4.473
6	8987.5	1.343	4.385
7	10404.9	1.327	4.297
8	11799.7	1.311	4.209
9	13171.8	1.296	4.121
10	14521.4	1.280	4.033
11	15848.3	1.264	3.945
12	17152.7	1.248	3.857
13	18434.2	1.232	3.769
14	19693.0	1.217	3.681
15	20928.7	1.201	3.593
16	22141.2	1.185	3.505
17	23330.3	1.169	3.417
18	24495.7	1.154	3.329
19	25637.2	1.138	3.241
20	26754.4	1.122	3.153
21	27846.9	1.106	3.065
22	28914.4	1.090	2.977
23	29956.5	1.074	2.889
24	30972.6	1.059	2.801
25	31962.3	1.043	2.713
26	32925.0	1.027	2.625
27	33860.2	1.011	2.537
28	34767.3	0.9956	2.449
29	35645.7	0.9798	2.361

Ref. 1 Babcock, H.D. and L. Herzberg, *Astrophys. J.* 108, 167 (1948).

Table 4. Spectroscopic Constants for the $B^3\Sigma_u^-$ State of O_2

v	$G_o(v)$ (cm^{-1})	B_v (cm^{-1})	D_v ($10^{-6} cm^{-1}$)
0	0.0	0.8130	4.380
1	688.0	0.7980	4.380
2	1353.1	0.7850	4.380
3	1994.6	0.7700	4.380
4	2612.2	0.7540	4.380
5	3204.0	0.7350	4.380
6	3765.2	0.7190	4.380
7	4299.2	0.7020	4.380
8	4799.6	0.6710	4.380
9	5265.0	0.6510	4.380
10	5694.2	0.6330	4.380
11	6082.4	0.5930	4.380
12	6427.0	0.5625	13.000
13	6727.9	0.5247	16.800
14	6982.9	0.4836	21.200
15	7192.9	0.4399	25.700
16	7361.9	0.3953	34.300
17	7494.8	0.3470	45.000
18	7596.9	0.2960	52.000
19	7672.6	0.2580	49.000
20	7725.2	0.2070	76.000

- Ref. 1 Curry, J. and G. Herzberg, *Ann. Physik* 19, 800 (1934)
 2 Knauss, H.P. and H.S. Ballard, *Phys. Rev.* 48, 796 (1935)
 3 Babcock, H.D. and L. Herzberg, *Astrophys. J.*, 108, 167 (1948)
 4 Brix, P. and G. Herzberg, *Can. J. Phys.* 32, 110 (1954)

Table 5. Spectroscopic Constants for the $A^3\Sigma_u^-$ State of N_2

v	$G_o(v)$ (cm^{-1})	B_v (cm^{-1})	D_v (10^{-6} cm^{-1})
0	0.0	1.433	5.5
1	1432.5	1.421	5.5
2	2837.0	1.408	5.5
3	4213.3	1.395	5.5
4	5561.4	1.382	5.5
5	6880.9	1.369	5.5
6	8171.9	1.356	5.5
7	9434.1	1.343	5.5
8	10667.4	1.330	5.5
9	11871.7	1.317	5.5
10	13046.7	1.304	5.5
11	14192.4	1.291	5.5

Ref. 1 Naude, S.M., Proc. Roy. Soc. London, 136, 114 (1932).

Table 6. Spectroscopic Constants for the $B^3\Pi_g$ State of N_2 .

v	$G_0(v)$ (cm^{-1})	Y_v	B_v (cm^{-1})	D_v (10^{-6} cm^{-1})
0	0.0	25.9	1.6285	5.8
1	1705.2	26.2	1.6108	6.0
2	3381.4	26.4	1.5925	6.0
3	5028.0	26.8	1.5735	6.0
4	6646.6	27.0	1.5554	6.0
5	8236.0	27.3	1.5364	6.0
6	9796.9	27.6	1.5172	6.0
7	11328.4	27.95	1.4954	6.0
8	12831.0	28.25	1.4765	6.0
9	14304.7	28.5	1.4576	6.0
10	15749.4	28.8	1.4387	6.0

Ref. 1 Budó, A., Z. Physik 96, 219 (1935).

Table 7. Spectroscopic Constants for the $C^3\Pi_u$ State of N_2 .

v	$G_0(v)$ (cm^{-1})	Y_v	B_v (cm^{-1})	D_v (10^{-6} cm^{-1})
0	0.0	21.5	1.9154	6.0
1	1994.2	21.5	1.7932	6.0
2	3934.4	21.4	1.7682	6.0
3	5808.1	21.1	1.7407	7.5
4	7589.8	20.3	1.7012	11.0

Ref. 1 Budó, A., Z. Physik 96, 219 (1935).

Table 8. Spectroscopic Constants for the $X^1\Sigma_g^+$ State of N_2

v	$G_v(v)$ (cm^{-1})	B_v (cm^{-1})	D_v (10^{-6} cm^{-1})
0	00.00	1.9898	6.4
1	2329.66	1.9720	5.0
2	4630.83	1.9548	5.0
3	6903.44	1.9364	5.5
4	9147.41	1.9186	5.5
5	11362.67	1.9008	5.5
6	13549.14	1.8829	5.0
7	15706.76	1.8651	5.0
8	17835.44	1.8473	5.0
9	19935.11	1.8295	5.0
10	22005.70	1.8117	5.0
11	24047.13	1.7939	5.3
12	26059.33	1.7761	5.5
13	28042.23	1.7583	5.5
14	29995.74	1.7405	6.0
15	31919.80	1.7227	6.0
16	33814.33	1.7048	6.0
17	35679.26	1.6870	6.0
18	37514.51	1.6692	6.0
19	39320.01	1.6514	6.0
20	41095.68	1.6336	6.0
21	42841.45	1.6158	6.0
22	44557.25	1.5980	6.0
23	46242.99	1.5802	6.0
24	47898.61	1.5624	6.0
25	49524.03	1.5446	6.0
26	51119.17	1.5267	6.0
27	52683.97	1.5089	6.0

Ref. 1 Lofthus, A., The Molecular Spectrum of Nitrogen,
Spectroscopic Report Number 2, Dept. of Physics, University
of Oslo, Blindern, Norway, Dec., 1960.

Table 9. Spectroscopic Constants for the $b^1\Sigma_u^+$ State of N_2

v	$G_0(v)$ (cm^{-1})	B_v (cm^{-1})	D_v (10^{-6} cm^{-1})
0	0.0	1.1515	11.04
1	742.0	1.146	11.37
2	1474.4	1.142	11.69
3	2196.7	1.137	12.02
4	2909.8	1.132	12.34
5	3613.2	1.128	12.67
6	4307.0	1.123	12.99

Ref. 1 Lofthus, A., The Molecular Spectrum of Nitrogen,
Spectroscopic Report Number 2, Dept. of Physics, University
of Oslo, Blindern, Norway, Dec., 1960.

Table 10. Spectroscopic Constants for the $X^2\Sigma_g^+$ State of N_2^+

v	$G_0(v)$ (cm^{-1})	B_v (cm^{-1})	D_v (10^{-6} cm^{-1})
0	0.0	1.922	6.0
1	2174.8	1.902	6.0
2	4317.0	1.879	6.0
3	6426.4	1.861	6.0
4	8502.8	1.841	6.0
5	10545.8	1.826	6.0
6	12555.0	1.808	6.0
7	14530.7	1.781	6.0
8	16470.6	1.766	6.0
9	18377.6	1.740	6.0
10	20249.7	1.724	6.0
11	22086.5	1.703	6.0
12	23887.6	1.683	6.0
13	25652.4	1.663	6.0
14	27380.5	1.641	6.0
15	29071.6	1.620	6.0
16	30725.1	1.593	6.0
17	32340.5	1.572	6.0
18	33917.3	1.552	6.0

Ref. 1 Douglas, A.E., Can. J. Phys. 30, 302-13 (1952).

Table 11. Spectroscopic Constants for the $B^2\Sigma_u^+$ State of N_2^+

v	$G_0(v)$ (cm^{-1})	B_v (cm^{-1})	D_v (10^{-6} cm^{-1})
0	0.0	2.073	6.0
1	2371.5	2.049	6.0
2	4690.3	2.025	6.0
3	6950.7	2.002	6.0
4	9147.1	1.968	6.0
5	11269.9	1.926	6.0
6	13310.9	1.896	6.0
7	15262.0	1.852	6.0
8	17100.2	1.810	6.0
9	18827.1	1.762	6.0
10	20423.8	1.710	6.0
11	21903.3	1.653	6.0
12	23275.1	1.595	6.0
13	24551.4	1.545	6.0
14	25747.7	1.494	6.0
15	26874.3	1.452	6.0
16	27941.4	1.404	6.0
17	28956.9	1.355	6.0

Ref. 1 Douglas, A.E., Can. J. Phys. 30, 302-13 (1952).

Table 12. Spectroscopic Constants for the $X^2\Pi$ State of NO .

v	$G_1(v)$ (cm^{-1})	$G_2(v)$ (cm^{-1})	Y_v	B_v (cm^{-1})	D_v (10^{-6} cm^{-1})
0	948.52	948.34	73.24	1.6957	5.0
1	2824.61	2824.08	74.02	1.6779	5.0
2	4672.74	4671.86	74.81	1.6601	5.0
3	6492.92	6491.70	75.62	1.6423	5.0
4	8285.13	8283.56	76.46	1.6245	5.0
5	10049.37	10047.44	77.30	1.6067	5.0
6	11785.63	11783.35	78.16	1.5889	5.0
7	13493.91	13491.28	79.05	1.5711	5.0
8	15174.18	15171.20	79.95	1.5533	5.0
9	16826.46	16823.13	80.88	1.5355	5.0
10	18450.73	18447.06	81.83	1.5177	5.0
11	20047.00	20042.82	82.80	1.4999	5.0
12	21615.13	21610.53	83.80	1.4821	5.0
13	23154.94	23149.82	84.81	1.4643	5.0
14	24666.29	24660.64	85.86	1.4465	5.0
15	26148.95	26142.79	86.93	1.4287	5.0
16	27602.67	27595.91	88.02	1.4109	5.0

Ref. 1 Gillette, R.H. and E.H. Eyster, Phys. Rev. 56, 1113 (1939).

Table 13. Spectroscopic Constants for the $A^2\Sigma^+$ State of NO.

v	$G_0(v)$ (cm^{-1})	B_v (cm^{-1})	D_v (10^{-6} cm^{-1})
0	0.0	1.9870	6.0
1	2341.4	1.9688	6.0
2	4651.4	1.9498	6.0
3	6928.2	1.9290	6.0
4	9170.7	1.9108	6.0
5	11380.4	1.8906	6.0
6	13558.8	1.8684	6.0
7	15703.1	1.8486	6.0

Ref. 1 Barrow, R.F. and E. Miescher, Proc. Phys. Soc. (London)
A70, 219 (1957).

Ref. 2 Irén Deézsi, Acta Physica Acad. Sci. Hung, 9, 125-150 (1959).

Table 14. Spectroscopic Constants for the $B^2\Pi$ State of NO.

v	$G_1(v)$ (cm^{-1})	$G_2(v)$ (cm^{-1})	Y_v	B_v (cm^{-1})	D_v (10^{-6} cm^{-1})
0	516.58	517.30	28.6	1.118	6.0
1	1538.66	1540.8	29	1.105	6.0
2	2546.4	2550.0	31	1.093	6.0
3	3540.4	3545.4	32	1.081	6.0
4	4521.2	4527.7	29	1.068	6.0
5	5489.4	5497.3	36	1.056	6.0
6	6445.6	6455.1	38	1.041	6.0

Ref. 1 Barrow, R.F. and E. Miescher, Proc. Phys. Soc. (London)
A70, 219 (1957).

Ref. 2 Irén Deézsi, Acta Physica Acad. Sci. Hung, 9, 125-150 (1959).

TABLE 15

Absolute Transition Probabilities
for Bands of the O₂ Schumann-Runge System

Band	Wavelength (Å)	$P_{V'V''}(\text{a}_0^2 \text{e}^2)$	$f_{V'V''}$	$A_{V'V''}(\text{sec}^{-1})$
0,0	2030	6.66 - 9	3.31 - 10	5.38 - 1
0,7	2567	6.37 - 3	3.29 - 4	3.35 + 5
0,8	2662	2.14 - 2	8.09 - 4	7.64 + 5
0,9	2703	4.59 - 2	1.67 - 3	1.47 + 6
0,10	2871	8.36 - 2	2.04 - 3	2.39 + 6
0,11	2984	1.30 - 1	4.38 - 3	3.30 + 6
0,12	3105	1.72 - 1	5.58 - 3	3.88 + 6
0,13	3234	1.97 - 1	6.13 - 3	3.93 + 6
0,14	3372	1.95 - 1	5.81 - 3	3.42 + 6
0,15	3518	1.67 - 1	4.78 - 3	2.84 + 6
0,16	3674	1.20 - 1	3.29 - 3	1.63 + 4
0,17	3842	7.43 - 2	1.95 - 3	8.84 + 5
0,18	4022	4.0 - 2	1.0 - 3	4.14 + 5
0,19	4216	1.82 - 2	4.33 - 4	1.63 + 5
0,20	4470	7.0 - 3	1.57 - 4	5.27 + 4
1,0	1998	7.59 - 8	3.83 - 9	6.41 + 0
1,7	2522	3.73 - 2	1.49 - 3	1.56 + 6
1,8	2615	7.42 - 2	2.86 - 3	2.80 + 6
1,9	2712	1.19 - 1	4.41 - 3	4.02 + 6
1,10	2815	1.49 - 1	5.33 - 3	4.51 + 6
1,11	2924	1.42 - 1	4.87 - 3	3.82 + 6
1,12	3040	9.21 - 2	3.05 - 3	2.21 + 6
1,13	3163	3.04 - 2	9.66 - 4	6.47 + 5
1,14	3294	1.36 - 4	4.16 - 6	2.56 + 3
1,15	3433	2.28 - 2	6.60 - 4	3.80 + 5
1,16	3584	7.82 - 2	3.18 - 4	1.65 + 5
1,17	3743	1.25 - 1	3.36 - 3	1.60 + 6
1,18	3914	1.31 - 1	3.38 - 3	1.48 + 6
1,19	4096	1.03 - 1	2.54 - 3	1.01 + 6
1,20	4292	6.50 - 2	1.52 - 3	5.53 + 5
1,21	4476	3.21 - 2	7.23 - 4	2.43 + 5
2,0	1971	4.58 - 7	2.34 - 4	3.27 + 1
2,7	2481	8.18 - 2	3.32 - 3	3.61 + 6
2,8	2570	1.22 - 1	4.80 - 3	4.87 + 6
2,9	2664	1.34 - 1	5.06 - 3	4.78 + 6
2,10	2762	9.50 - 2	3.46 - 3	3.04 + 6
2,11	2868	3.14 - 2	1.1 - 3	8.98 + 6
2,12	2979	1.10 - 6	3.73 - 8	2.8 + 1
2,13	3093	3.05 - 2	9.92 - 4	6.97 + 4
2,14	3233	8.20 - 2	2.56 - 3	1.65 + 6
2,15	3358	9.05 - 2	2.71 - 3	1.61 + 6
2,16	3501	4.31 - 2	1.24 - 3	6.77 + 5
2,17	3651	2.18 - 3	6.0 - 5	3.01 + 4
2,18	3837	1.63 - 2	4.29 - 4	1.96 + 5
2,19	3988	0.87 - 2	1.74 - 3	7.3 + 5
2,20	4174	1.07 - 1	2.57 - 3	9.92 + 5
2,21	4374	1.99 - 1	4.57 - 3	1.6 + 6
3,0	1947	1.91 - 0	9.88 - 8	1.75 + 2
4,0	1924	0.18 - 6	3.24 - 7	5.87 + 2
5,0	1902	1.59 - 5	8.4 - 7	1.55 + 3
6,0	1882	3.52 - 5	1.88 - 6	3.56 + 3

TABLE 15(Cont.)

Band	Wavelength (Å)	$p_{V'V''}(a_0^2 \cdot s^2)$	$f_{V'V''}$	$\Lambda_{V'V''}(\text{sec}^{-1})$
7,0	1863	$6.77 - 5$	$3.66 - 6$	$7.04 + 3$
8,0	1846	$1.15 - 4$	$6.25 - 6$	$1.23 + 4$
9,0	1830	$1.76 - 4$	$0.97 - 6$	$2.00 + 4$
10,0	1816	$2.58 - 4$	$1.43 - 5$	$2.9 + 4$
11,0	1803	$3.59 - 4$	$2.0 - 5$	$4.12 + 4$
12,0	1792	$4.78 - 4$	$2.60 - 5$	$5.61 + 4$
13,0	1872	$5.59 - 4$	$3.16 - 5$	$6.65 + 4$
14,0	1774	$5.88 - 4$	$3.33 - 5$	$7.10 + 4$
15,0	1768	$5.67 - 4$	$3.23 - 5$	$6.90 + 4$
16,0	1763	$5.05 - 4$	$2.89 - 5$	$6.22 + 4$
17,0	1759	$4.34 - 4$	$2.48 - 5$	$5.38 + 4$

Ref. 1 Nicholls, R.W., Annales de Geophysique 20, 144 (1964).

TABLE 16

Absolute Transition Probabilities
for Bands of the N_2 First Positive System

Band	Wavelength (Å)	$P_{V'V''}(a_0^2 e^2)$	$f_{V'V''}$	$A_{V'V''}(sec^{-1})$
0,0	10,387	2.82 - 1	1.4 - 3	8.65 + 4
0,1	12,211	3.37 - 1	1.38 - 3	6.17 + 4
0,2	14,735	2.29 - 1	8.01 - 4	2.46 + 4
1,0	8851	2.62 - 1	1.521 - 3	1.29 + 5
1,1	10,200	1.6 - 3	8.08 - 6	5.18 + 2
1,2	11,800	1.00 - 1	4.30 - 4	2.10 + 4
1,3	14,043	1.95 - 1	7.51 - 4	2.54 + 4
1,4	17,192	2.01 - 1	6.03 - 4	1.36 + 4
2,0	7694	0.57 - 2	6.407 - 4	7.21 + 4
2,1	8673	1.31 - 1	7.78 - 4	6.90 + 4
2,2	9850	8.70 - 2	4.55 - 4	3.18 + 4
2,3	11,436	1.87 - 3	8.43 - 6	4.30 + 2
2,4	13,420	8.26 - 2	3.17 - 4	1.17 + 4
2,5	16,163	1.64 - 1	5.24 - 4	1.34 + 4
3,0	6824	1.70 - 1	1.28 - 4	1.83 + 4
3,1	7869	1.38 - 1	0.41 - 4	1.00 + 5
3,2	8504	2.31 - 2	1.4 - 4	1.20 + 4
3,3	9694	1.18 - 1	6.36 - 4	4.61 + 4
3,4	11,116	2.78 - 2	1.20 - 4	6.95 + 3
3,5	12,844	0.65 - 3	3.87 - 5	1.56 + 4
3,6	15,370	8.62 - 2	2.80 - 4	8.16 + 3
4,0	6396	1.37 - 3	1.12 - 5	1.88 + 3
4,1	6741	4.37 - 2	3.34 - 4	4.90 + 4
4,2	7451	1.20 - 1	8.31 - 4	0.98 + 4
4,3	8315	5.68 - 2	3.52 - 6	3.30 + 2
4,4	9368	8.02 - 2	4.41 - 4	3.35 + 4
5,1	6698	5.00 - 3	4.90 - 5	8.95 + 3
5,2	6661	0.54 - 2	5.06 - 4	7.60 + 4
5,3	7338	8.78 - 2	5.45 - 4	6.75 + 4
5,4	8200	2.52 - 2	1.58 - 4	1.57 + 4
5,5	9147	3.01 - 2	1.60 - 4	1.35 + 4
6,1	5571	3.96 - 4	3.66 - 6	7.85 + 2
6,2	6030	1.23 - 2	1.05 - 4	1.91 + 4
6,3	6583	7.73 - 2	6.05 - 4	9.31 + 4
6,4	7229	3.36 - 2	2.39 - 4	3.05 + 4
6,5	7981	5.56 - 2	3.59 - 4	3.76 + 4
7,2	5533	1.00 - 3	9.33 - 6	2.03 + 3
7,3	5985	2.06 - 2	1.77 - 4	3.28 + 4
7,4	6505	7.65 - 2	6.06 - 4	9.54 + 4
7,5	7121	7.69 - 2	5.56 - 5	7.31 + 3
7,6	7831	6.24 - 2	4.10 - 4	4.46 + 4
8,3	5196	2.15 - 3	2.01 - 5	4.44 + 3
8,4	5931	3.06 - 2	2.66 - 4	5.91 + 4
8,5	6432	0.56 - 2	5.25 - 4	8.45 + 4
9,4	5459	3.90 - 3	3.76 - 5	8.41 + 3
9,5	5879	3.64 - 2	3.19 - 4	6.16 + 4
9,6	6360	4.91 - 2	4.00 - 4	6.58 + 4
10,5	5424	5.85 - 3	5.55 - 5	1.26 + 4
10,6	5829	3.95 - 2	3.49 - 4	6.85 + 4
10,7	6291	3.25 - 2	2.66 - 4	4.48 + 4
11,6	5390	8.80 - 3	8.50 - 5	1.95 + 4
11,7	5779	4.40 - 2	3.93 - 4	7.85 + 4
11,8	6221	1.43 - 1	1.18 - 4	1.79 + 4
12,7	5352	4.18 - 2	4.02 - 4	9.63 + 4
12,8	5730	6.81 - 2	6.12 - 5	1.24 + 4

Ref. 1 Nicholls, R.W., Annales de Geophysique 20, 144 (1964).

TABLE 17
Absolute Transition Probabilities
for Bands of the N₂ Second Positive System

Band	Wavelength (Å)	$P_{V'V''}(a_0^2 \cdot s^{-2})$	$f_{V'V''}$	$A_{V'V''}(\text{sec}^{-1})$
0,0	3371.3	1.24 + 0	1.90 - 2	1.11 + 7
0,1	3576.9	9.65 - 1	1.40 - 2	7.27 + 6
0,2	3804.9	4.52 - 1	6.15 - 3	2.83 + 6
0,3	4059.4	1.82 - 1	2.31 - 3	9.33 + 5
0,4	4343.6	6.03 - 2	7.18 - 4	2.54 + 5
0,5	4667.3	1.5 - 2	1.67 - 4	5.11 - 4
1,0	3159.3	9.35 - 1	1.53 - 2	1.02 + 7
1,1	3339	6.03 - 2	9.34 - 4	5.59 + 5
1,2	3536.7	6.03 - 1	8.82 - 3	4.70 + 6
1,3	3755.4	6.03 - 1	8.31 - 3	3.93 + 6
1,4	3998.4	3.62 - 1	4.68 - 3	1.95 + 6
1,5	4269.7	1.55 - 1	1.83 - 3	6.08 + 5
1,6	4574.3	6.03 - 2	6.82 - 4	2.17 + 5
1,7	4916.8	3.02 - 2	3.17 - 4	8.75 + 4
2,0	2976.8	2.72 - 1	4.72 - 3	3.55 + 6
2,1	3136.0	7.53 - 1	1.24 - 2	8.43 + 6
2,2	3309	9.05 - 2	1.41 - 3	8.61 + 5
2,3	3500.5	1.82 - 1	2.67 - 3	1.45 + 6
2,4	3710.5	4.82 - 1	6.73 - 3	3.26 + 6
2,5	3943.0	4.52 - 1	5.93 - 3	2.54 + 6
2,6	4200.5	2.72 - 1	3.35 - 3	1.26 + 6
2,7	4490.2	1.21 - 1	1.39 - 3	4.60 + 5
2,8	4814.7	6.03 - 2	6.48 - 4	1.86 + 5
3,0	2819.8	3.02 - 2	5.53 - 4	4.64 + 5
3,1	2962.0	4.82 - 1	8.43 - 3	6.40 + 3
3,2	3116.7	3.92 - 2	6.51 - 3	4.47 + 6
3,3	3285.3	3.02 - 1	4.75 - 3	2.93 + 6
3,5	3671.9	2.72 - 1	3.82 - 3	1.89 + 6
3,6	3894.6	4.52 - 1	6.01 - 3	2.64 + 6
3,7	4141.8	3.32 - 1	4.14 - 3	1.61 + 6
3,8	4416.7	1.82 - 1	2.12 - 3	7.24 + 5
3,9	4723.5	9.05 - 2	9.91 - 4	2.96 + 5
4,1	2814.3	9.03 - 2	1.66 - 3	1.40 + 6
4,2	2953.2	5.43 - 1	9.51 - 3	7.27 + 6
4,3	3104.0	1.21 - 1	2.01 - 3	1.39 + 6
4,4	3268.1	3.92 - 1	6.21 - 3	3.87 + 6
4,5	3446	6.03 - 2	9.05 - 4	5.08 + 5
4,6	3641.7	9.05 - 2	1.29 - 3	6.46 + 5
4,7	3857.9	3.02 - 1	4.04 - 3	1.81 + 6
4,8	4094.8	3.62 - 1	4.57 - 3	1.82 + 6
4,9	4355.0	2.42 - 1	2.87 - 2	1.0 + 7

Ref. 1 Nicholls, R.W., Annales de Geophysique 20, 144 (1964).

TABLE 18

Absolute Transition Probabilities
for Bands of the N_2^+ First Negative System

Band	Wavelength (Å)	$P_{v'v''}(a_0^2 e^2)$	$f_{v'v''}$	$A_{v'v''}(\text{sec}^{-1})$
0,0	3914.4	3.90 - 1	1.90 - 2	1.24 + 7
0,1	4278.1	1.66 - 1	6.03 - 3	2.20 + 6
0,2	4709.2	5.06 - 2	1.67 - 3	5.01 + 5
0,3	5228.3	1.45 - 2	4.29 - 4	1.05 + 5
1,0	3582.1	1.52 - 1	6.58 - 3	3.42 + 6
1,1	3884.3	1.52 - 1	6.07 - 3	2.68 + 6
1,2	4236.5	1.95 - 1	7.15 - 3	2.66 + 6
1,3	4651.8	1.88 - 1	6.27 - 3	1.93 + 6
1,4	5148.8	3.61 - 2	1.09 - 3	2.74 + 5
2,0	3308.0	2.89 - 2	1.36 - 3	8.26 + 5
2,1	3583.9	2.09 - 1	9.13 - 3	4.79 + 6
2,2	3857.9	4.34 - 2	1.75 - 3	7.82 + 5
2,3	4199.1	1.66 - 1	6.15 - 3	2.32 + 6
2,4	4599.7	1.23 - 1	4.15 - 4	1.31 + 5
3,1	3298.7	6.50 - 2	3.03 - 3	1.88 + 6
3,2	3548.9	2.24 - 1	9.80 - 3	5.19 + 6

Ref. 1 Nicholls, R.W., Annales de Geophysique 20, 144 (1964).

TABLE 19
Absolute Transition Probabilities
for Bands of the NO₂ System

Band	Wavelength (Å)	$p_{V'V''}(a_0^2 e^2)$	$f_{V'V''}$	$A_{V'V''}(\text{sec}^{-1})$
—	—	—	—	—
0,4	2621	1.73 — 3	4.97 — 5	4.84 + 4
0,5	2748	4.13 — 3	1.13 — 4	1.01 + 5
0,6	2885	7.76 — 3	2.02 — 4	1.63 + 5
0,7	3035	1.17 — 2	2.90 — 4	2.11 + 5
0,8	3198	1.44 — 2	3.39 — 4	2.22 + 5
0,9	3376	1.47 — 2	3.28 — 4	1.93 + 5
0,10	3572	1.24 — 2	2.61 — 4	1.37 + 5
0,11	3789	8.82 — 3	1.75 — 4	8.17 + 4
0,12	4028	5.22 — 3	9.75 — 5	4.03 + 4
0,13	4294	2.55 — 3	4.47 — 5	2.77 + 4
1,4	2552	4.89 — 3	1.44 — 4	1.48 + 5
1,5	2672	7.57 — 3	2.13 — 4	2.0 + 5
1,6	2803	7.99 — 3	2.15 — 4	1.84 + 5
1,7	2943	4.94 — 3	1.26 — 4	9.72 + 4
1,10	3446	4.75 — 3	1.04 — 4	5.87 + 5
1,11	3647	1.08 — 2	2.23 — 4	1.13 + 5
1,12	3868	1.42 — 2	2.76 — 4	1.23 + 5
1,13	4114	1.29 — 2	2.35 — 4	9.31 + 4
2,2	2288	1.79 — 3	5.89 — 5	7.5 + 4
2,3	2382	4.28 — 3	1.35 — 4	1.59 + 5
2,4	2488	6.25 — 3	1.89 — 4	2.04 + 5
2,5	2602	5.18 — 3	1.50 — 4	1.49 + 5
2,6	2725	1.58 — 3	4.36 — 5	3.93 + 4
2,8	3003	3.37 — 3	8.44 — 5	6.27 + 4
2,9	3159	6.73 — 3	1.60 — 4	1.07 + 5
2,10	3331	4.92 — 3	1.11 — 4	6.67 + 4
2,11	3518	6.57 — 4	1.41 — 5	7.64 + 3
2,13	3950	7.67 — 3	1.47 — 4	6.31 + 4
3,0	2063	1.40 — 4	5.10 — 6	7.97 + 3
3,1	2144	1.04 — 3	3.66 — 5	5.33 + 4
3,2	2232	3.24 — 3	1.09 — 4	1.47 + 5
3,3	2327	5.34 — 3	1.73 — 4	1.96 + 5
3,4	2428	4.35 — 3	1.35 — 4	1.53 + 5
3,5	2536	9.64 — 4	2.86 — 5	2.98 + 4
3,8	2916	4.60 — 3	1.19 — 4	9.38 + 4
4,0	2021	3.27 — 4	1.22 — 5	2.00 + 4
4,1	2100	1.92 — 3	6.88 — 5	1.07 + 5
4,4	2372	1.35 — 3	4.28 — 5	5.09 + 4
5,0	1982	6.43 — 4	2.45 — 5	4.17 + 4
5,2	2139	4.71 — 3	1.66 — 4	2.43 + 5
5,3	2230	2.49 — 3	8.43 — 5	1.14 + 5
5,4	2319	2.25 — 6	7.30 — 8	9.11 + 1
5,6	2524	3.14 — 3	9.36 — 5	9.85 + 4
6,0	1945	1.09 — 3	4.24 — 5	7.5 + 4
6,1	2018	3.81 — 3	1.42 — 4	2.34 + 5
6,2	2096	3.98 — 3	1.43 — 4	2.18 + 5
6,3	2179	6.38 — 4	2.21 — 5	3.12 + 4

Ref. 1 Nicholls, R.W., Annales de Geophysique 20, 144 (1964).

TABLE 20

Absolute Transition Probabilities
for Bands of the NO γ System

Band	Wavelength (Å)	$P_{V'V''}(a_0^2 e^2)$	$f_{V'V''}$	$A_{V'V''}(\text{sec}^{-1})$
—	—	—	—	—
0,0	2262	1.26 — 2	4.14 — 4	5.42 + 5
0,1	2362	2.30 — 2	7.38 — 4	8.80 + 5
0,2	2470	2.46 — 2	7.53 — 4	8.27 + 5
0,3	2586	2.13 — 2	6.20 — 4	6.21 + 5
0,4	2712	1.79 — 2	4.98 — 4	4.54 + 5
0,5	2848	1.40 — 2	3.71 — 4	3.07 + 5
0,6	2998	9.77 — 3	2.46 — 4	1.83 + 5
0,7	3171	6.28 — 3	1.51 — 4	1.01 + 5
1,0	2148	2.26 — 3	7.94 — 4	1.15 + 6
1,1	2238	7.76 — 3	2.62 — 4	3.45 + 5
1,2	2338	6.67 — 5	2.15 — 6	2.63 + 3
1,3	2439	7.12 — 3	2.20 — 4	2.48 + 5
1,4	2550	1.67 — 2	4.95 — 4	5.11 + 5
1,5	2670	2.27 — 2	6.43 — 4	6.04 + 5
1,6	2800	2.58 — 2	6.97 — 4	5.96 + 5
1,7	2941	2.42 — 2	6.23 — 4	4.82 + 5
2,0	2047	1.84 — 2	6.81 — 4	1.09 + 6
2,1	2128	0.90 — 3	3.52 — 5	5.20 + 4
2,2	2215	1.13 — 2	3.84 — 4	5.25 + 5
2,3	2309	6.08 — 3	1.98 — 4	2.49 + 5
2,4	2410	5.20 — 5	1.63 — 6	1.88 + 3
2,5	2516	3.88 — 3	1.16 — 4	1.21 + 5
2,6	2630	1.16 — 2	3.74 — 4	3.66 + 5
2,7	2754	2.37 — 2	6.51 — 4	5.75 + 5
3,0	1956	9.55 — 3	3.54 — 4	6.19 + 5
3,1	2030	1.22 — 2	4.53 — 4	7.37 + 5
3,2	2109	3.25 — 3	1.16 — 4	1.75 + 5
3,3	2193	2.66 — 3	9.14 — 5	1.27 + 5
3,4	2283	8.84 — 3	2.93 — 4	3.76 + 5
3,5	2379	4.62 — 3	1.44 — 4	1.70 + 5
3,6	2481	6.30 — 5	1.92 — 6	2.09 + 5
3,7	2580	3.04 — 3	8.83 — 5	8.91 + 5
4,0	1878	2.98 — 3	1.20 — 4	2.28 + 5
4,1	1740	1.43 — 2	5.59 — 4	9.98 + 5
4,2	2019	2.22 — 3	8.30 — 5	1.37 + 5
4,3	2096	18.28 — 3	2.99 — 4	4.56 + 5
5,0	1803	6.76 — 4	2.84 — 5	5.86 + 4
5,1	1866	7.94 — 3	3.18 — 4	6.12 + 5
5,2	1933	1.18 — 2	4.61 — 4	8.24 + 5
5,3	2003	2.27 — 4	8.57 — 6	1.43 + 4
5,4	2078	6.72 — 3	2.45 — 4	3.80 + 5
5,5	2160	3.52 — 3	1.24 — 4	1.78 + 5
6,0	1735	1.10 — 4	4.82 — 6	1.07 + 3
6,1	1795	2.55 — 3	1.08 — 4	2.25 + 5
6,2	1855	1.16 — 2	4.72 — 4	9.19 + 5

Ref. 1 Nicholls, R.W., *Annales de Geophysique* 20, 144 (1964).

TABLE 21
The Vibrational Matrix Elements ($M^{v''v'} \times 10^{21}$)
for V-R Transitions $X^2\Pi - X^2\Pi$ in NO

$v'' \backslash v'$	1	2	3	4	5	6	7	8
0	72.619	10.138	-1.671	-0.559	-0.157	0.0	0.0	0.0
1	0.0	104.208	17.624	-3.542	-1.148	-0.360	0.0	0.0
2	0.0	0.0	129.520	24.854	-5.924	-2.057	-0.677	0.0
3	0.0	0.0	0.0	151.888	32.134	-8.848	-3.472	-1.143
4	0.0	0.0	0.0	0.0	172.710	39.550	-12.349	-5.535
5	0.0	0.0	0.0	0.0	0.0	192.602	47.124	-16.422
6	0.0	0.0	0.0	0.0	0.0	0.0	211.870	54.827
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	230.601
$v'' \backslash v'$	9	10	11	12	13	14	15	
4	-1.753	0.0	0.0	0.0	0.0	0.0	0.0	
5	-8.311	-2.455	0.0	0.0	0.0	0.0	0.0	
6	-21.008	-11.762	-3.161	0.0	0.0	0.0	0.0	
7	62.595	-26.012	-15.764	-3.755	0.0	0.0	0.0	
8	248.760	70.363	-31.321	-20.138	-4.120	0.0	0.0	
9	0.0	266.290	78.075	-36.832	-24.684	-4.152	0.0	
10	0.0	0.0	283.116	85.702	-42.454	-29.210	-3.759	
11	0.0	0.0	0.0	299.180	93.241	-48.115	-22.540	
12	0.0	0.0	0.0	0.0	314.480	100.710	-53.753	
13	0.0	0.0	0.0	0.0	0.0	329.010	108.160	
14	0.0	0.0	0.0	0.0	0.0	0.0	342.781	

Ref. 1 Churchill, D.R., B.H. Armstrong and K.G. Mueller, Absorption Coefficients of Heated Air: A Compilation to 24,000°K, LMSC 4-77-65-1, July, 1965.

TABLE 22

Frank-Condon Factors for the N_2 ($b: {}^1E_u^+ - X {}^1E_g^+$)
Birge-Hopfield No. 1 System

v'	v''						
	0	1	2	3	4	5	6
0	2.1190-7	2.9921-6	2.1884-5	1.0971-4	4.2151-4	1.3171-3	3.4716-3
1	2.7849-6	3.4604-5	2.2112-4	9.5936-4	3.1524-3	8.3013-3	1.8101-2
2	1.8669-5	2.0290-4	1.1238-3	4.1742-3	1.1554-2	2.5089-2	4.3828-2
3	8.5095-5	8.0341-4	3.8204-3	1.1986-2	2.7389-2	4.7522-2	6.3144-2
4	2.9664-6	2.4137-3	9.7434-3	2.5373-2	4.6537-2	6.1416-2	5.6360-2
5	8.4338-4	5.8603-3	1.9804-2	4.1831-2	5.9053-2	5.4340-2	2.7371-2
6	2.0367-3	1.1957-2	3.3239-2	5.5152-2	5.5978-5	2.9782-2	3.0393-3
	7	8	9	10	11	12	13
0	7.9072-3	1.5831-2	2.8210-2	4.5158-2	6.5404-2	8.6174-2	1.0372-1
1	3.3321-2	5.2317-2	7.0244-2	8.0177-2	7.6375-2	5.8193-2	3.1969-2
2	6.2072-2	7.0591-2	6.2211-2	3.8681-2	1.2476-2	5.3382-5	1.5731-3
3	6.2689-2	4.2684-2	1.4943-2	1.4776-4	9.7782-3	3.3398-2	4.6879-2
4	3.1176-2	5.4214-3	2.1711-3	2.2324-2	4.0811-2	3.4640-2	1.1261-2
5	2.7340-3	5.3553-3	2.8169-2	3.8433-2	2.1321-2	1.3800-3	7.4268-3
6	5.8297-3	2.9014-2	3.4894-2	1.3957-2	1.7964-5	1.5049-2	3.2478-2
	14	15	16	17	18	19	20
0	1.1442-1	1.1595-1	1.0813-1	9.2899-2	7.3580-2	5.3735-2	3.6175-2
1	8.9762-3	2.1381-6	9.6578-3	3.3955-2	6.2614-2	8.4465-2	9.2570-2
2	3.3555-2	5.3490-2	5.3909-2	3.4531-2	1.0367-2	1.0483-5	1.2100-2
3	3.6128-2	1.2112-2	2.4528-6	1.2953-2	3.8361-2	5.1042-2	3.8781-2
4	1.1900-4	1.5406-2	3.7429-2	3.7755-2	1.5946-2	1.6971-4	1.1410-2
5	2.9736-2	3.4215-2	1.3956-2	9.4965-9	1.4218-2	3.5984-2	3.3118-2
6	2.2115-2	1.8886-3	7.0055-3	2.8850-2	2.8672-2	7.9907-3	1.4963-3
	21	22	23	24	25	26	27
0	2.2435-2	1.2804-2	6.7151-3	3.2302-3	1.4220-3	5.7133-4	2.0881-4
1	8.6338-2	7.0204-2	5.0455-2	3.2307-2	1.8514-2	9.5167-3	4.3901-3
2	4.0365-2	6.9563-2	8.6062-2	8.4950-2	7.0140-2	4.9651-2	3.0553-2
3	1.3774-2	5.5983-3	1.1550-2	4.1815-2	7.1932-2	8.5977-2	8.0219-2
4	3.7500-2	4.8499-2	3.2247-2	7.2453-3	1.2946-3	2.3401-2	5.8100-2
5	9.8604-3	6.3770-4	2.0551-2	4.4596-2	4.2193-2	1.6791-2	8.9475-5
6	2.2638-2	3.7228-2	2.1406-2	1.0002-3	1.0148-2	3.8019-2	4.5685-2

Ref. 1 Churchill, D.R. and S.A. Hagstrom, Infrared Absorption in Heated Air from Vibration-Rotation Bands of Nitric Oxide, LMSC 2-12-64-2, December, 1964.

C. Absorption Coefficients (1000 - 24,000°K)

1. Spectral Absorption Coefficients

The tables of absorption coefficients of heated air were produced with the aid of the SACHA digital computer programs. Relevant theory of the molecular and atomic radiative processes which contribute to absorption in heated air as well as the averaging procedure used in constructing average absorption coefficients has been thoroughly covered in the literature (see D. R. Churchill, B. H. Armstrong, R. R. Johnston, and K. G. Müller, JQSRT 6, 371 (1966) and references cited therein).

The absorption coefficients listed have been averaged over energy intervals of 0.1 eV, with these intervals centered at the corresponding listed energy. Tables are grouped according to temperature and these groups are arranged sequentially with increasing temperature. There are 24 such groups, one for each temperature from 1,000°K to 24,000°K at 1,000°K intervals. Within each temperature block are eight tables of two pages each with a table for each density; densities are taken at integral powers of ten from ten times normal atmospheric to 10^{-6} times normal. The photon-energy range covered in each table is 10.7 - 0.6 eV.

The difference in headings on the two pages of each table is a result of the large number of absorbers included in the calculation.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		FREE-FREE		TOTAL AIR	
ENERGY	S. US	02 S-R	NO. 1	NO. 2	NO. 3	0- PHOTO-DET (IONS)	N P.E.	0 P.E.	0 P.E.
E.V.	CM.	CM.	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
1 10.70 0.	0.	1.08E-03	0.	0.	0.	0.	0.	0.	1.08E-03
2 10.70 0.	0.	3.92E-09	0.	0.	0.	0.	0.	0.	3.92E-09
3 10.70 0.	0.	9.09E-10	0.	0.	0.	0.	0.	0.	9.09E-10
4 10.70 0.	0.	4.66E-10	0.	0.	0.	0.	0.	0.	4.66E-10
5 10.70 0.	0.	1.20E-10	0.	0.	0.	0.	0.	0.	1.20E-10
6 10.70 0.	0.	4.03E-11	0.	0.	0.	0.	0.	0.	4.03E-11
7 10.70 0.	0.	2.33E-11	0.	0.	0.	0.	0.	0.	2.33E-11
8 10.70 0.	0.	2.91E-12	0.	0.	0.	0.	0.	0.	2.91E-12
9 10.70 0.	0.	2.04E-12	0.	0.	0.	0.	0.	0.	2.04E-12
10 10.70 0.	0.	7.44E-13	0.	0.	0.	0.	0.	0.	7.44E-13
11 10.70 0.	0.	9.89E-14	0.	0.	0.	0.	0.	0.	9.89E-14
12 10.70 0.	0.	1.13E-13	0.	0.	0.	0.	0.	0.	1.13E-13
13 10.70 0.	0.	1.32E-14	0.	0.	0.	0.	0.	0.	1.32E-14
14 10.70 0.	0.	1.38E-15	0.	0.	0.	0.	0.	0.	1.38E-15
15 10.70 0.	0.	2.38E-15	0.	0.	0.	0.	0.	0.	2.38E-15
16 10.70 0.	0.	3.38E-16	0.	0.	0.	0.	0.	0.	3.38E-16
17 10.70 0.	0.	4.64E-17	0.	0.	0.	0.	0.	0.	4.64E-17
18 10.70 0.	0.	5.95E-17	0.	0.	0.	0.	0.	0.	5.95E-17
19 10.70 0.	0.	7.26E-17	0.	0.	0.	0.	0.	0.	7.26E-17
20 10.70 0.	0.	7.78E-18	0.	0.	0.	0.	0.	0.	7.78E-18
21 10.70 0.	0.	7.69E-18	0.	0.	0.	0.	0.	0.	7.69E-18
22 10.70 0.	0.	7.60E-18	0.	0.	0.	0.	0.	0.	7.60E-18
23 10.70 0.	0.	7.35E-18	0.	0.	0.	0.	0.	0.	7.35E-18
24 10.70 0.	0.	6.91E-19	0.	0.	0.	0.	0.	0.	6.91E-19
25 10.70 0.	0.	6.40E-19	0.	0.	0.	0.	0.	0.	6.40E-19
26 10.70 0.	0.	5.82E-20	0.	0.	0.	0.	0.	0.	5.82E-20
27 10.70 0.	0.	5.21E-21	0.	0.	0.	0.	0.	0.	5.21E-21
28 10.70 0.	0.	4.60E-22	0.	0.	0.	0.	0.	0.	4.60E-22
29 10.70 0.	0.	3.94E-22	0.	0.	0.	0.	0.	0.	3.94E-22
30 10.70 0.	0.	3.27E-23	0.	0.	0.	0.	0.	0.	3.27E-23
31 10.70 0.	0.	2.64E-23	0.	0.	0.	0.	0.	0.	2.64E-23
32 10.70 0.	0.	2.17E-24	0.	0.	0.	0.	0.	0.	2.17E-24
33 10.70 0.	0.	1.64E-24	0.	0.	0.	0.	0.	0.	1.64E-24
34 10.70 0.	0.	1.24E-25	0.	0.	0.	0.	0.	0.	1.24E-25
35 10.70 0.	0.	8.95E-26	0.	0.	0.	0.	0.	0.	8.95E-26
36 10.70 0.	0.	6.79E-27	0.	0.	0.	0.	0.	0.	6.79E-27
37 10.70 0.	0.	4.74E-28	0.	0.	0.	0.	0.	0.	4.74E-28
38 10.70 0.	0.	3.30E-29	0.	0.	0.	0.	0.	0.	3.30E-29
39 10.70 0.	0.	2.40E-30	0.	0.	0.	0.	0.	0.	2.40E-30
40 10.70 0.	0.	1.64E-31	0.	0.	0.	0.	0.	0.	1.64E-31
41 10.70 0.	0.	1.12E-32	0.	0.	0.	0.	0.	0.	1.12E-32
42 10.70 0.	0.	7.44E-33	0.	0.	0.	0.	0.	0.	7.44E-33
43 10.70 0.	0.	5.43E-34	0.	0.	0.	0.	0.	0.	5.43E-34
44 10.70 0.	0.	4.03E-35	0.	0.	0.	0.	0.	0.	4.03E-35
45 10.70 0.	0.	3.03E-36	0.	0.	0.	0.	0.	0.	3.03E-36
46 10.70 0.	0.	2.33E-37	0.	0.	0.	0.	0.	0.	2.33E-37
47 10.70 0.	0.	1.80E-38	0.	0.	0.	0.	0.	0.	1.80E-38
48 10.70 0.	0.	1.32E-39	0.	0.	0.	0.	0.	0.	1.32E-39
49 10.70 0.	0.	9.89E-40	0.	0.	0.	0.	0.	0.	9.89E-40
50 10.70 0.	0.	7.44E-41	0.	0.	0.	0.	0.	0.	7.44E-41
51 10.70 0.	0.	5.82E-42	0.	0.	0.	0.	0.	0.	5.82E-42

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY BANDS	A2	M2	TEMPERATURE (DEGREES K)	1000.	DENSITY (GM/CC)		NO	GAMMA	VIB-ROT	NO	0- PHOTO-NET (IONS)		FREE-EFFE	N	P.E.	O	TOTAL AIP
52	5.60	8.15E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.25E-03
53	5.90	5.01E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.78E-03
54	5.40	1.63E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.63E-03
55	5.50	8.17E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.08E-03
56	5.20	9.34E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.72E-04
57	5.10	9.14E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.19E-04
58	5.00	5.19E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.29E-04
59	4.90	3.92E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.66E-04
60	4.80	2.12E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.13E-04
61	4.70	9.06E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.26E-04
62	4.60	4.33E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.47E-04
63	4.50	1.30E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.69E-04
64	4.40	5.17E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.94E-04
65	4.30	2.04E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.31E-04
66	4.20	6.09E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.74E-04
67	4.10	3.34E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.21E-04
68	4.00	8.11E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.79E-04
69	3.90	1.82E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.42E-04
70	3.80	1.25E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.18E-04
71	3.70	2.03E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04
72	3.60	7.18E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.10E-03
73	3.50	2.87E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.21E-03
74	3.40	5.45E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.34E-03
75	3.30	1.91E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.39E-03
76	3.20	4.90E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.43E-03
77	3.10	1.18E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.45E-03
78	3.00	3.06E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.38E-03
79	2.90	6.95E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.34E-03
80	2.80	2.05E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.24E-03
81	2.70	2.50E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.13E-03
82	2.60	4.84E-18	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.01E-03
83	2.50	4.94E-20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.75E-04
84	2.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.56E-04
85	2.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.92E-04
86	2.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.49E-04
87	2.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.28E-04
88	2.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.17E-04
89	1.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.43E-04
90	1.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.32E-05
91	1.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.65E-05
92	1.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.44E-05
93	1.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.97E-06
94	1.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95	1.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
96	1.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
97	1.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
98	1.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
99	0.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
100	0.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
101	0.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
102	0.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

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ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)				1000.	DENSITY (GM/CC) 1.293E-03 (10.0E-01 NORMAL)				TOTAL AIR			
PHOTON O2 S-R		N2	N2*	NO	NO	NO	NO	0	FREE-FREE		0	
ENERGY BANDS		1ST POS.	2ND POS.	1ST NEG.	BETA	GAMMA	VIB-ROT	2	PHOTO-DET	(IONS)	P.E.	P.E.
52	5.50 8.15E-04 0.	0.	0.	0.	8.48E-08	9.63E-06	0.	0.	0.	0.	0.	0.75E-04
53	5.50 5.10E-04 0.	0.	0.	0.	4.75E-07	3.76E-04	0.	0.	0.	0.	0.	0.76E-04
54	5.50 1.63E-04 0.	0.	0.	0.	2.69E-07	1.51E-07	0.	0.	0.	0.	0.	1.33E-04
55	5.50 8.17E-05 0.	0.	0.	0.	7.51E-08	2.61E-05	0.	0.	0.	0.	0.	1.08E-04
56	5.50 9.54E-06 0.	0.	0.	0.	4.30E-08	1.77E-05	0.	0.	0.	0.	0.	2.72E-05
57	5.50 8.14E-06 0.	0.	0.	0.	1.16E-08	4.60E-07	0.	1.37E-05	0.	0.	0.	2.23E-05
58	5.50 5.19E-06 0.	0.	0.	0.	3.65E-09	2.78E-06	0.	1.42E-05	0.	0.	0.	2.52E-05
59	4.90 3.92E-06 0.	0.	0.	0.	2.30E-09	1.79E-06	0.	1.46E-05	0.	0.	0.	1.67E-05
60	4.80 2.12E-06 0.	0.	0.	0.	3.37E-09	1.68E-07	0.	1.55E-05	0.	0.	0.	1.76E-05
61	4.70 9.45E-07 0.	0.	0.	0.	5.53E-09	8.38E-10	0.	1.63E-05	0.	0.	0.	1.73E-05
62	4.60 4.35E-07 0.	0.	0.	0.	5.09E-10	1.24E-08	0.	1.72E-05	0.	0.	0.	1.76E-05
63	4.50 1.50E-07 0.	0.	0.	0.	2.55E-10	4.20E-11	0.	1.79E-05	0.	0.	0.	1.76E-05
64	4.40 5.17E-08 0.	0.	0.	0.	6.29E-11	6.40E-10	0.	1.68E-05	0.	0.	0.	1.68E-05
65	4.30 2.04E-08 0.	0.	0.	0.	3.13E-11	1.46E-10	0.	2.00E-05	0.	0.	0.	2.00E-05
66	4.20 3.09E-09 0.	0.	0.	0.	8.63E-12	2.34E-11	0.	2.13E-05	0.	0.	0.	2.13E-05
67	4.10 3.34E-09 0.	0.	0.	0.	3.46E-12	2.27E-11	0.	2.26E-05	0.	0.	0.	2.26E-05
68	4.00 5.11E-10 0.	0.	0.	0.	1.33E-12	5.36E-13	0.	2.47E-05	0.	0.	0.	2.47E-05
69	3.90 1.82E-10 0.	0.	0.	0.	3.07E-13	1.53E-12	0.	2.66E-05	0.	0.	0.	2.66E-05
70	3.80 1.25E-10 0.	0.	0.	0.	1.91E-13	0.	0.	2.90E-05	0.	0.	0.	2.90E-05
71	3.70 2.03E-11 0.	0.	0.	0.	2.51E-14	0.	0.	3.17E-05	0.	0.	0.	3.17E-05
72	3.60 7.10E-12 0.	0.	0.	0.	2.19E-14	0.	0.	3.48E-05	0.	0.	0.	3.48E-05
73	3.50 2.87E-12 0.	0.	0.	0.	2.06E-15	0.	0.	3.84E-05	0.	0.	0.	3.84E-05
74	3.40 5.45E-13 0.	0.	0.	0.	1.96E-15	0.	0.	4.24E-05	0.	0.	0.	4.24E-05
75	3.30 1.93E-13 0.	0.	0.	0.	1.80E-16	0.	0.	4.40E-05	0.	0.	0.	4.40E-05
76	3.20 4.90E-14 0.	0.	0.	0.	1.35E-16	0.	0.	4.48E-05	0.	0.	0.	4.48E-05
77	3.10 1.12E-14 0.	0.	0.	0.	1.60E-17	0.	0.	4.51E-05	0.	0.	0.	4.51E-05
78	3.00 3.06E-15 0.	0.	0.	0.	7.92E-18	0.	0.	4.57E-05	0.	0.	0.	4.57E-05
79	2.90 6.95E-16 0.	0.	0.	0.	6.02E-19	0.	0.	4.64E-05	0.	0.	0.	4.64E-05
80	2.80 2.03E-16 0.	0.	0.	0.	1.51E-19	0.	0.	3.92E-05	0.	0.	0.	3.92E-05
81	2.70 2.50E-17 0.	0.	0.	0.	1.56E-21	0.	0.	3.57E-05	0.	0.	0.	3.57E-05
82	2.60 4.04E-19 0.	0.	0.	0.	1.45E-23	0.	0.	3.21E-05	0.	0.	0.	3.21E-05
83	2.50 4.94E-21 0.	0.	0.	0.	1.72E-25	0.	0.	2.77E-05	0.	0.	0.	2.77E-05
84	2.40 0.	0.	0.	0.	1.64E-27	0.	0.	2.39E-05	0.	0.	0.	2.39E-05
85	2.30 0.	0.	0.	0.	0.	0.	0.	1.97E-05	0.	0.	0.	1.97E-05
86	2.20 0.	0.	0.	0.	0.	0.	0.	1.42E-05	0.	0.	0.	1.42E-05
87	2.10 0.	0.	0.	0.	0.	0.	0.	1.04E-05	0.	0.	0.	1.04E-05
88	2.00 0.	0.	0.	0.	0.	0.	0.	6.85E-06	0.	0.	0.	6.85E-06
89	1.90 0.	0.	0.	0.	0.	0.	0.	4.52E-06	0.	0.	0.	4.52E-06
90	1.80 0.	0.	0.	0.	0.	0.	0.	2.63E-06	0.	0.	0.	2.63E-06
91	1.70 0.	0.	0.	0.	0.	0.	0.	1.47E-06	0.	0.	0.	1.47E-06
92	1.60 0.	0.	0.	0.	0.	0.	0.	7.73E-07	0.	0.	0.	7.73E-07
93	1.50 0.	0.	0.	0.	0.	0.	0.	3.15E-07	0.	0.	0.	3.15E-07
94	1.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95	1.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
96	1.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
97	1.10 0.	0.	0.	0.	0.	0.	1.46E-10	0.	0.	0.	0.	1.46E-10
98	1.00 0.	0.	0.	0.	0.	0.	2.21E-13	0.	0.	0.	0.	2.21E-13
99	0.90 0.	0.	0.	0.	0.	0.	1.58E-09	0.	0.	0.	0.	1.58E-09
100	0.80 0.	0.	0.	0.	0.	0.	3.24E-12	0.	0.	0.	0.	3.24E-12
101	0.70 0.	0.	0.	0.	0.	0.	9.34E-09	0.	0.	0.	0.	9.34E-09
102	0.60 0.	0.	0.	0.	0.	0.	8.06E-11	0.	0.	0.	0.	8.06E-11

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY E.V.	O2 S-R BANDS	O2 S-R CONT.	TEMPERATURE (DEGREES K)		NO RETA	NO GAMMA	NO 2	O- PHOTO-DET (IONS)	FREE-FREE M	P.F.	TOTAL AIR
			NO. 1	NO. 2							
1 10.70 0.		0.	1.08E-10	0.	0.	0.	0.	0.	0.	0.	1.08E-10
2 10.60 0.		0.	3.92E-11	0.	0.	0.	0.	0.	0.	0.	3.92E-11
3 10.50 0.		0.	9.09E-12	0.	0.	0.	0.	0.	0.	0.	9.09E-12
4 10.40 0.		0.	4.66E-12	0.	0.	0.	0.	0.	0.	0.	4.66E-12
5 10.30 0.		0.	1.20E-12	0.	0.	0.	0.	0.	0.	0.	1.20E-12
6 10.20 0.		0.	4.03E-13	0.	0.	0.	0.	0.	0.	0.	4.03E-13
7 10.10 0.		0.	2.33E-13	0.	0.	0.	0.	0.	0.	0.	2.33E-13
8 10.00 0.		0.	2.91E-14	0.	0.	0.	0.	0.	0.	0.	2.91E-14
9 9.90 0.		0.	2.04E-14	0.	0.	0.	0.	0.	0.	0.	2.04E-14
10 9.80 0.		0.	7.44E-15	0.	0.	0.	0.	0.	0.	0.	7.44E-15
11 9.70 0.		0.	9.89E-16	0.	0.	0.	0.	0.	0.	0.	9.89E-16
12 9.60 0.		0.	1.13E-15	0.	0.	0.	0.	0.	0.	0.	1.13E-15
13 9.50 0.		3.72E-01	1.21E-14	0.	0.	0.	0.	0.	0.	0.	3.72E-01
14 9.40 0.		1.38E-00	6.34E-17	0.	0.	0.	0.	0.	0.	0.	1.38E-00
15 9.30 0.		2.38E-00	3.07E-17	0.	0.	0.	0.	0.	0.	0.	2.38E-00
16 9.20 0.		3.36E-00	1.57E-16	0.	0.	0.	0.	0.	0.	0.	3.36E-00
17 9.10 0.		4.64E-00	4.77E-16	0.	0.	0.	0.	0.	0.	0.	4.64E-00
18 9.00 0.		5.95E-00	3.43E-19	0.	0.	0.	0.	0.	0.	0.	5.95E-00
19 8.90 0.		7.24E-00	2.57E-19	0.	0.	0.	0.	0.	0.	0.	7.24E-00
20 8.80 0.		7.76E-00	6.95E-20	0.	0.	0.	0.	0.	0.	0.	7.76E-00
21 8.70 0.		7.68E-00	1.05E-20	0.	0.	0.	0.	0.	0.	0.	7.68E-00
22 8.60 0.		7.60E-00	1.21E-20	0.	0.	0.	0.	0.	0.	0.	7.60E-00
23 8.50 0.		7.35E-00	8.34E-22	0.	0.	0.	0.	0.	0.	0.	7.35E-00
24 8.40 0.		6.91E-00	1.04E-21	0.	0.	0.	0.	0.	0.	0.	6.91E-00
25 8.30 0.		6.40E-00	9.65E-23	0.	0.	0.	0.	0.	0.	0.	6.40E-00
26 8.20 0.		5.82E-00	6.51E-23	0.	0.	0.	0.	0.	0.	0.	5.82E-00
27 8.10 0.		5.21E-00	1.14E-23	0.	0.	0.	0.	0.	0.	0.	5.21E-00
28 8.00 0.		4.60E-00	4.85E-24	0.	0.	0.	0.	0.	0.	0.	4.60E-00
29 7.90 0.		3.94E-00	1.20E-24	0.	0.	0.	0.	0.	0.	0.	3.94E-00
30 7.80 0.		3.27E-00	4.74E-25	0.	0.	0.	0.	0.	0.	0.	3.27E-00
31 7.70 0.		2.68E-00	1.39E-25	0.	0.	0.	0.	0.	0.	0.	2.68E-00
32 7.60 0.		2.17E-00	3.41E-26	0.	0.	0.	0.	0.	0.	0.	2.17E-00
33 7.50 0.		1.64E-00	1.11E-26	0.	0.	0.	0.	0.	0.	0.	1.64E-00
34 7.40 0.		1.24E-00	2.47E-27	0.	0.	0.	0.	0.	0.	0.	1.24E-00
35 7.30 0.		8.95E-01	7.11E-28	0.	0.	0.	0.	0.	0.	0.	8.95E-01
36 7.20 0.		6.79E-01	1.74E-28	0.	0.	0.	0.	0.	0.	0.	6.79E-01
37 7.10 0.		4.74E-01	4.65E-29	0.	0.	0.	0.	0.	0.	0.	4.74E-01
38 7.00 0.	4.08E-02	0.	1.21E-29	0.	0.	0.	0.	0.	0.	0.	4.08E-02
39 6.90 0.	4.40E-02	0.	3.30E-30	0.	0.	0.	0.	0.	0.	0.	4.40E-02
40 6.80 0.	2.11E-02	0.	8.40E-31	0.	0.	0.	0.	0.	0.	0.	2.11E-02
41 6.70 0.	8.45E-03	0.	2.15E-31	0.	0.	0.	0.	0.	0.	0.	8.45E-03
42 6.60 0.	3.68E-03	0.	5.43E-32	0.	0.	0.	0.	0.	0.	0.	3.68E-03
43 6.50 0.	1.12E-03	0.	7.21E-32	0.	0.	0.	0.	0.	0.	0.	1.12E-03
44 6.40 0.	1.96E-03	0.	1.69E-33	0.	0.	0.	0.	0.	0.	0.	1.96E-03
45 6.30 0.	2.01E-03	0.	1.14E-34	0.	0.	0.	0.	0.	0.	0.	2.01E-03
46 6.20 0.	1.74E-03	0.	2.46E-36	0.	0.	0.	0.	0.	0.	0.	1.74E-03
47 6.10 0.	2.23E-03	0.	3.03E-38	0.	0.	0.	0.	0.	0.	0.	2.23E-03
48 6.00 0.	1.80E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.80E-03
49 5.90 0.	9.65E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.65E-04
50 5.80 0.	4.05E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.05E-04
51 5.70 0.	9.51E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.51E-05

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R		TEMPERATURE (DEGREES K)		1000.		DENSITY (GM/CC)		1.293E-04		(10.0E-02 NORMAL)		TOTAL AIR	
ENERGY BANDS	1ST POS.	2ND POS.	1ST NEG.	N2+	N2	NO	NO	NO	NO	NO	NO	NO	NO
52	5.60	8.15E-05	0.	0.	0.	4.48E-09	9.87E-07	0.	0.	0.	0.	0.	0.
53	5.50	5.01E-05	0.	0.	0.	4.75E-08	3.74E-05	0.	0.	0.	0.	0.	0.
54	5.40	1.63E-05	0.	0.	0.	2.69E-08	1.51E-08	0.	0.	0.	0.	0.	0.
55	5.30	8.17E-06	0.	0.	0.	7.51E-09	2.61E-06	0.	0.	0.	0.	0.	0.
56	5.20	9.94E-07	0.	0.	0.	4.36E-09	1.77E-06	0.	0.	0.	0.	0.	0.
57	5.10	8.14E-07	0.	0.	0.	1.10E-09	4.61E-08	0.	4.33E-07	0.	0.	0.	0.
58	5.00	5.19E-07	0.	0.	0.	3.89E-10	2.78E-07	0.	4.50E-07	0.	0.	0.	0.
59	4.90	3.92E-07	0.	0.	0.	2.36E-10	1.76E-09	0.	4.90E-07	0.	0.	0.	0.
60	4.80	2.12E-07	0.	0.	0.	3.37E-10	1.08E-08	0.	4.90E-07	0.	0.	0.	0.
61	4.70	9.60E-08	0.	0.	0.	1.53E-10	8.39E-11	0.	5.16E-07	0.	0.	0.	0.
62	4.60	4.38E-08	0.	0.	0.	5.06E-11	1.24E-09	0.	5.42E-07	0.	0.	0.	0.
63	4.50	1.50E-08	0.	0.	0.	2.39E-11	4.28E-12	0.	5.67E-07	0.	0.	0.	0.
64	4.40	5.17E-09	0.	0.	0.	6.29E-12	6.40E-11	0.	5.94E-07	0.	0.	0.	0.
65	4.30	2.04E-09	0.	0.	0.	3.13E-12	1.48E-11	0.	6.31E-07	0.	0.	0.	0.
66	4.20	6.09E-10	0.	0.	0.	8.83E-13	2.34E-12	0.	6.74E-07	0.	0.	0.	0.
67	4.10	3.34E-10	0.	0.	0.	3.46E-13	2.27E-12	0.	7.21E-07	0.	0.	0.	0.
68	4.00	8.11E-11	0.	0.	0.	1.39E-13	5.34E-14	0.	7.79E-07	0.	0.	0.	0.
69	3.90	1.82E-11	0.	0.	0.	3.07E-14	1.53E-13	0.	8.42E-07	0.	0.	0.	0.
70	3.80	1.27E-11	0.	0.	0.	1.91E-14	0.	0.	9.18E-07	0.	0.	0.	0.
71	3.70	2.03E-12	0.	0.	0.	2.51E-15	0.	0.	1.00E-06	0.	0.	0.	0.
72	3.60	7.18E-13	0.	0.	0.	2.19E-15	0.	0.	1.10E-06	0.	0.	0.	0.
73	3.50	2.07E-13	0.	0.	0.	2.06E-16	0.	0.	1.21E-06	0.	0.	0.	0.
74	3.40	5.45E-14	0.	0.	0.	1.56E-16	0.	0.	1.34E-06	0.	0.	0.	0.
75	3.30	1.93E-14	0.	0.	0.	1.80E-17	0.	0.	1.39E-06	0.	0.	0.	0.
76	3.20	4.90E-15	0.	0.	0.	1.36E-17	0.	0.	1.42E-06	0.	0.	0.	0.
77	3.10	1.12E-15	0.	0.	0.	1.60E-18	0.	0.	1.43E-06	0.	0.	0.	0.
78	3.00	3.06E-16	0.	0.	0.	7.92E-19	0.	0.	1.38E-06	0.	0.	0.	0.
79	2.90	6.95E-17	0.	0.	0.	6.02E-20	0.	0.	1.34E-06	0.	0.	0.	0.
80	2.80	2.05E-17	0.	0.	0.	1.51E-20	0.	0.	1.24E-06	0.	0.	0.	0.
81	2.70	2.50E-18	0.	0.	0.	1.56E-22	0.	0.	1.13E-06	0.	0.	0.	0.
82	2.60	4.84E-20	0.	0.	0.	1.49E-24	0.	0.	1.01E-06	0.	0.	0.	0.
83	2.50	4.94E-22	0.	0.	0.	1.72E-26	0.	0.	8.75E-07	0.	0.	0.	0.
84	2.40	0.	0.	0.	0.	1.64E-28	0.	0.	7.56E-07	0.	0.	0.	0.
85	2.30	0.	0.	0.	0.	0.	0.	0.	5.92E-07	0.	0.	0.	0.
86	2.20	0.	0.	0.	0.	0.	0.	0.	4.49E-07	0.	0.	0.	0.
87	2.10	0.	0.	0.	0.	0.	0.	0.	3.28E-07	0.	0.	0.	0.
88	2.00	0.	0.	0.	0.	0.	0.	0.	2.17E-07	0.	0.	0.	0.
89	1.90	0.	0.	0.	0.	0.	0.	0.	1.43E-07	0.	0.	0.	0.
90	1.80	0.	0.	0.	0.	0.	0.	0.	8.32E-08	0.	0.	0.	0.
91	1.70	0.	0.	0.	0.	0.	0.	0.	4.65E-08	0.	0.	0.	0.
92	1.60	0.	0.	0.	0.	0.	0.	0.	2.44E-08	0.	0.	0.	0.
93	1.50	0.	0.	0.	0.	0.	0.	0.	9.97E-09	0.	0.	0.	0.
94	1.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95	1.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
96	1.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
97	1.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
98	1.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
99	0.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
100	0.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
101	0.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
102	0.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

DENSITY (GM/CC) 1.293E-05 (10.0E+03 NORMAL)												
TEMPERATURE (DEGREES K) 1000.												
PHOTON ENERGY BANDS E.V.	O2 S-R BANDS	O2 S-R CONT.	N2 B-H NO. 1	NO BETA	AO GAMMA	NO 2	D- PHOTO-DET (IONS)	D- FREE-PAIRS M P.E.	N P.E.	0 P.F.	TOTAL AIR	
1 10.70 0.		0.	1.00E-11	0.	0.	0.	0.	0.	0.	0.	1.00E-11	
2 10.60 0.		0.	3.92E-12	0.	0.	0.	0.	0.	0.	0.	3.92E-12	
3 10.50 0.		0.	9.09E-13	0.	0.	0.	0.	0.	0.	0.	9.09E-13	
4 10.40 0.		0.	4.66E-13	0.	0.	0.	0.	0.	0.	0.	4.66E-13	
5 10.30 0.		0.	1.20E-13	0.	0.	0.	0.	0.	0.	0.	1.20E-13	
6 10.20 0.		0.	4.03E-14	0.	0.	0.	0.	0.	0.	0.	4.03E-14	
7 10.10 0.		0.	2.33E-14	0.	0.	0.	0.	0.	0.	0.	2.33E-14	
8 10.00 0.		0.	2.91E-15	0.	0.	0.	0.	0.	0.	0.	2.91E-15	
9 9.90 0.		0.	2.04E-15	0.	0.	0.	0.	0.	0.	0.	2.04E-15	
10 9.80 0.		0.	7.44E-16	0.	0.	0.	0.	0.	0.	0.	7.44E-16	
11 9.70 0.		0.	9.89E-17	0.	0.	0.	0.	0.	0.	0.	9.89E-17	
12 9.60 0.		0.	1.13E-16	0.	0.	0.	0.	0.	0.	0.	1.13E-16	
13 9.50 0.		0.	1.21E-17	0.	0.	0.	0.	0.	0.	0.	1.21E-17	
14 9.40 0.		0.	1.38E-01	6.32E-18	0.	0.	0.	0.	0.	0.	1.38E-01	
15 9.30 0.		0.	2.38E-01	3.07E-18	0.	0.	0.	0.	0.	0.	2.38E-01	
16 9.20 0.		0.	3.38E-01	1.67E-19	0.	0.	0.	0.	0.	0.	3.38E-01	
17 9.10 0.		0.	4.64E-01	4.77E-19	0.	0.	0.	0.	0.	0.	4.64E-01	
18 9.00 0.		0.	5.95E-01	3.43E-20	0.	0.	0.	0.	0.	0.	5.95E-01	
19 8.90 0.		0.	7.24E-01	2.57E-20	0.	0.	0.	0.	0.	0.	7.24E-01	
20 8.80 0.		0.	7.74E-01	6.95E-21	0.	0.	0.	0.	0.	0.	7.74E-01	
21 8.70 0.		0.	7.69E-01	1.05E-21	0.	0.	0.	0.	0.	0.	7.69E-01	
22 8.60 0.		0.	7.60E-01	1.21E-21	0.	0.	0.	0.	0.	0.	7.60E-01	
23 8.50 0.		0.	7.35E-01	8.34E-23	0.	0.	0.	0.	0.	0.	7.35E-01	
24 8.40 0.		0.	6.91E-01	1.04E-22	0.	0.	0.	0.	0.	0.	6.91E-01	
25 8.30 0.		0.	6.40E-01	9.85E-24	0.	0.	0.	0.	0.	0.	6.40E-01	
26 8.20 0.		0.	5.67E-01	6.51E-24	0.	0.	0.	0.	0.	0.	5.67E-01	
27 8.10 0.		0.	5.21E-01	1.16E-24	0.	0.	0.	0.	0.	0.	5.21E-01	
28 8.00 0.		0.	4.60E-01	4.63E-25	0.	0.	0.	0.	0.	0.	4.60E-01	
29 7.90 0.		0.	3.94E-01	1.29E-25	0.	0.	0.	0.	0.	0.	3.94E-01	
30 7.80 0.		0.	3.27E-01	4.74E-26	0.	0.	0.	0.	0.	0.	3.27E-01	
31 7.70 0.		0.	2.68E-01	1.39E-26	0.	0.	0.	0.	0.	0.	2.68E-01	
32 7.60 0.		0.	2.17E-01	3.41E-27	0.	0.	0.	0.	0.	0.	2.17E-01	
33 7.50 0.		0.	1.66E-01	1.11E-27	0.	0.	0.	0.	0.	0.	1.66E-01	
34 7.40 0.		0.	1.26E-01	2.47E-28	0.	0.	0.	0.	0.	0.	1.26E-01	
35 7.30 0.		0.	8.95E-02	7.11E-29	0.	0.	0.	0.	0.	0.	8.95E-02	
36 7.20 0.		0.	6.79E-02	1.74E-29	0.	0.	0.	0.	0.	0.	6.79E-02	
37 7.10 0.		0.	4.74E-02	4.05E-30	0.	0.	0.	0.	0.	0.	4.74E-02	
38 7.00 0.		0.	1.21E-30	1.21E-30	0.	0.	0.	0.	0.	0.	1.21E-30	
39 6.90 0.		0.	3.30E-31	3.30E-31	0.	0.	0.	0.	0.	0.	3.30E-31	
40 6.80 0.		0.	8.40E-32	8.40E-32	0.	0.	0.	0.	0.	0.	8.40E-32	
41 6.70 0.		0.	2.16E-32	2.16E-32	0.	0.	0.	0.	0.	0.	2.16E-32	
42 6.60 0.		0.	5.43E-33	5.43E-33	0.	0.	0.	0.	0.	0.	5.43E-33	
43 6.50 0.		0.	1.21E-33	1.21E-33	0.	0.	0.	0.	0.	0.	1.21E-33	
44 6.40 0.		0.	1.69E-34	1.69E-34	0.	0.	0.	0.	0.	0.	1.69E-34	
45 6.30 0.		0.	1.14E-35	1.14E-35	0.	0.	0.	0.	0.	0.	1.14E-35	
46 6.20 0.		0.	2.46E-37	2.46E-37	0.	0.	0.	0.	0.	0.	2.46E-37	
47 6.10 0.		0.	3.03E-39	3.03E-39	0.	0.	0.	0.	0.	0.	3.03E-39	
48 6.00 0.		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
49 5.90 0.		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
50 5.80 0.		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
51 5.70 0.		0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON Q2 S-R ENERGY RANGS		N2 1ST POS.	N2 2ND POS.	N2+ 1ST NEG.	TEMPERATURE (DEGREES K)	1000. DENSITY (GM/CC)	1.293E-05 (10.0E-03 NORMAL)											TOTAL AIR	
								NO	BETA	NO	GAMMA	VIB-ROT	NO	2	PHOTO-DET (IONS)	FREE-FREE M	P.E.	0	P.F.
52	5.63	8.15E-06	0.	0.	0.	0.	0.	8.48E-10	9.83E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.25E-06	0.
53	5.50	5.01E-06	0.	0.	0.	0.	0.	4.75E-09	3.74E-06	0.	0.	0.	0.	0.	0.	0.	0.	8.78E-06	0.
54	5.40	1.63E-06	0.	0.	0.	0.	0.	2.69E-09	1.51E-09	0.	0.	0.	0.	0.	0.	0.	0.	1.63E-06	0.
55	5.30	8.17E-07	0.	0.	0.	0.	0.	7.51E-10	2.61E-07	0.	0.	0.	0.	0.	0.	0.	0.	1.08E-06	0.
56	5.20	9.54E-08	0.	0.	0.	0.	0.	4.36E-10	1.77E-07	0.	0.	0.	0.	0.	0.	0.	0.	2.72E-07	0.
57	5.10	8.14E-08	0.	0.	0.	0.	0.	1.16E-10	4.80E-09	0.	0.	0.	0.	0.	0.	0.	0.	9.98E-08	0.
58	5.00	5.19E-08	0.	0.	0.	0.	0.	3.55E-11	2.78E-08	0.	0.	0.	0.	0.	0.	0.	0.	9.41E-08	0.
59	4.90	3.92E-08	0.	0.	0.	0.	0.	2.38E-11	1.74E-10	0.	0.	0.	0.	0.	0.	0.	0.	5.42E-08	0.
60	4.80	2.12E-08	0.	0.	0.	0.	0.	3.77E-11	1.84E-09	0.	0.	0.	0.	0.	0.	0.	0.	3.87E-08	0.
61	4.70	9.60E-09	0.	0.	0.	0.	0.	1.53E-11	6.84E-12	0.	0.	0.	0.	0.	0.	0.	0.	2.60E-08	0.
62	4.60	4.33E-09	0.	0.	0.	0.	0.	5.09E-12	1.24E-10	0.	0.	0.	0.	0.	0.	0.	0.	2.16E-08	0.
63	4.50	1.50E-09	0.	0.	0.	0.	0.	2.55E-12	4.30E-13	0.	0.	0.	0.	0.	0.	0.	0.	1.95E-08	0.
64	4.40	5.17E-10	0.	0.	0.	0.	0.	6.20E-13	6.48E-12	0.	0.	0.	0.	0.	0.	0.	0.	1.95E-08	0.
65	4.30	2.04E-10	0.	0.	0.	0.	0.	3.53E-13	1.47E-12	0.	0.	0.	0.	0.	0.	0.	0.	2.02E-08	0.
66	4.20	6.09E-11	0.	0.	0.	0.	0.	6.53E-14	2.34E-13	0.	0.	0.	0.	0.	0.	0.	0.	2.14E-08	0.
67	4.10	3.34E-11	0.	0.	0.	0.	0.	3.46E-14	2.27E-13	0.	0.	0.	0.	0.	0.	0.	0.	2.79E-08	0.
68	4.00	8.11E-12	0.	0.	0.	0.	0.	1.33E-14	5.36E-15	0.	0.	0.	0.	0.	0.	0.	0.	2.47E-08	0.
69	3.90	1.82E-12	0.	0.	0.	0.	0.	3.77E-15	1.53E-14	0.	0.	0.	0.	0.	0.	0.	0.	2.66E-08	0.
70	3.80	1.27E-12	0.	0.	0.	0.	0.	1.51E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.98E-08	0.
71	3.70	2.63E-13	0.	0.	0.	0.	0.	2.51E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.17E-08	0.
72	3.60	7.18E-14	0.	0.	0.	0.	0.	2.06E-17	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.48E-08	0.
73	3.50	2.87E-14	0.	0.	0.	0.	0.	1.96E-17	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.84E-08	0.
74	3.40	5.45E-15	0.	0.	0.	0.	0.	1.90E-18	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.24E-08	0.
75	3.30	1.93E-15	0.	0.	0.	0.	0.	1.30E-18	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.49E-08	0.
76	3.20	4.90E-16	0.	0.	0.	0.	0.	1.30E-18	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.49E-08	0.
77	3.10	1.12E-16	0.	0.	0.	0.	0.	1.80E-19	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.51E-08	0.
78	3.00	3.06E-17	0.	0.	0.	0.	0.	7.92E-20	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.37E-08	0.
79	2.90	6.95E-18	0.	0.	0.	0.	0.	6.02E-21	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.24E-08	0.
80	2.80	2.05E-18	0.	0.	0.	0.	0.	1.51E-21	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.92E-08	0.
81	2.70	2.50E-19	0.	0.	0.	0.	0.	1.54E-23	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.57E-08	0.
82	2.60	4.84E-21	0.	0.	0.	0.	0.	1.45E-25	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.21E-08	0.
83	2.50	4.94E-23	0.	0.	0.	0.	0.	1.72E-27	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.72E-08	0.
84	2.40	0.	0.	0.	0.	0.	0.	1.44E-29	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.39E-08	0.
85	2.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.87E-08	0.
86	2.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.42E-08	0.
87	2.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.04E-08	0.
88	2.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.85E-09	0.
89	1.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.52E-09	0.
90	1.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.63E-09	0.
91	1.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.47E-09	0.
92	1.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.73E-10	0.
93	1.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.16E-10	0.
94	1.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95	1.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
96	1.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
97	1.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.48E-12	0.
98	1.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.21E-15	0.
99	0.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.38E-11	0.
100	0.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.24E-14	0.
101	0.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.54E-11	0.
102	0.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.06E-13	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON Q2 S-R ENERGY BANDS E.V.		Q2 S-R CONT.		N2 B-M NO. 1		TEMPERATURE (DEGREES K)		1000.		DENSITY (GM/CC) 1.2532-06		NO 2		0- PHOTO-DET (IONS)		FREE-FREE P.E.		N P.E.		TOTAL AIR P.E.	
1	10.70	0.	0.	1.08E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.08E-12	0.
2	10.60	0.	0.	3.92E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.92E-13	0.
3	10.50	0.	0.	9.09E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.09E-14	0.
4	10.40	0.	0.	4.66E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.66E-14	0.
5	10.30	0.	0.	1.20E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.20E-14	0.
6	10.20	0.	0.	4.03E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.03E-15	0.
7	10.10	0.	0.	2.33E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.33E-15	0.
8	10.00	0.	0.	2.91E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.91E-16	0.
9	9.90	0.	0.	2.04E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.04E-16	0.
10	9.80	0.	0.	7.44E-17	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.44E-17	0.
11	9.70	0.	0.	9.09E-18	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.09E-18	0.
12	9.60	0.	0.	1.13E-17	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.13E-17	0.
13	9.50	0.	0.	3.72E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.72E-03	0.
14	9.40	0.	0.	1.34E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.34E-02	0.
15	9.30	0.	0.	2.30E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.30E-02	0.
16	9.20	0.	0.	3.08E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.08E-02	0.
17	9.10	0.	0.	4.64E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.64E-02	0.
18	9.00	0.	0.	5.95E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.95E-02	0.
19	8.90	0.	0.	7.26E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.26E-02	0.
20	8.80	0.	0.	7.78E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.78E-02	0.
21	8.70	0.	0.	7.69E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.69E-02	0.
22	8.60	0.	0.	7.60E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.60E-02	0.
23	8.50	0.	0.	7.35E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.35E-02	0.
24	8.40	0.	0.	6.91E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.91E-02	0.
25	8.30	0.	0.	6.40E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.40E-02	0.
26	8.20	0.	0.	5.02E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.02E-02	0.
27	8.10	0.	0.	5.21E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.21E-02	0.
28	8.00	0.	0.	4.50E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.50E-02	0.
29	7.90	0.	0.	3.94E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.94E-02	0.
30	7.80	0.	0.	3.27E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.27E-02	0.
31	7.70	0.	0.	2.66E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.66E-02	0.
32	7.60	0.	0.	2.17E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.17E-02	0.
33	7.50	0.	0.	1.66E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.66E-02	0.
34	7.40	0.	0.	1.24E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.24E-02	0.
35	7.30	0.	0.	8.95E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.95E-03	0.
36	7.20	0.	0.	6.70E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.70E-03	0.
37	7.10	0.	0.	4.74E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.74E-03	0.
38	7.00	0.	0.	3.54E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.54E-10	0.
39	6.90	0.	0.	2.49E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.49E-11	0.
40	6.80	0.	0.	1.66E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.66E-11	0.
41	6.70	0.	0.	1.24E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.24E-11	0.
42	6.60	0.	0.	8.95E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.95E-12	0.
43	6.50	0.	0.	6.70E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.70E-12	0.
44	6.40	0.	0.	4.74E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.74E-12	0.
45	6.30	0.	0.	3.54E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.54E-10	0.
46	6.20	0.	0.	2.49E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.49E-11	0.
47	6.10	0.	0.	1.66E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.66E-11	0.
48	6.00	0.	0.	1.24E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.24E-11	0.
49	5.90	0.	0.	8.95E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.95E-12	0.
50	5.80	0.	0.	6.70E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.70E-12	0.
51	5.70	0.	0.	4.74E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.74E-12	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON D2 S-R ENERGY BANDS	M2 1ST POS.	M2 2ND POS.	M2 1ST NEG.	M2 2ND NEG.	NO REF	NO CAMMA	NO VIB-RNT	NO 2	O- PHOTO-DET	N P.E.	FREE-FREE (IONS)	N P.E.	0 P.E.	TOTAL AIR
52 5.60 8.15E-07	0.	0.	0.	0.	8.48E-11	9.83E-09	0.	0.	0.	0.	0.	0.	0.	8.25E-07
53 5.50 5.01E-07	0.	0.	0.	0.	4.75E-10	3.74E-07	0.	0.	0.	0.	0.	0.	0.	8.78E-07
54 5.40 1.43E-07	0.	0.	0.	0.	2.69E-10	1.51E-10	0.	0.	0.	0.	0.	0.	0.	1.63E-07
55 5.30 8.17E-08	0.	0.	0.	0.	7.51E-11	2.51E-08	0.	0.	0.	0.	0.	0.	0.	1.08E-07
56 5.20 9.54E-09	0.	0.	0.	0.	4.36E-11	1.77E-08	0.	0.	0.	0.	0.	0.	0.	2.72E-08
57 5.10 0.14E-09	0.	0.	0.	0.	1.16E-11	4.60E-10	0.	0.	0.	0.	0.	0.	0.	9.09E-09
58 5.00 5.19E-09	0.	0.	0.	0.	3.85E-12	2.74E-09	0.	0.	0.	0.	0.	0.	0.	8.43E-09
59 4.90 3.92E-09	0.	0.	0.	0.	3.37E-12	1.79E-11	0.	0.	0.	0.	0.	0.	0.	4.41E-09
60 4.80 2.12E-09	0.	0.	0.	0.	3.37E-12	1.82E-10	0.	0.	0.	0.	0.	0.	0.	2.80E-09
61 4.70 9.60E-10	0.	0.	0.	0.	1.53E-12	8.34E-13	0.	0.	0.	0.	0.	0.	0.	1.48E-09
62 4.60 4.35E-10	0.	0.	0.	0.	2.09E-13	1.24E-11	0.	0.	0.	0.	0.	0.	0.	7.88E-10
63 4.50 1.50E-10	0.	0.	0.	0.	2.35E-13	4.20E-14	0.	0.	0.	0.	0.	0.	0.	7.18E-10
64 4.40 5.17E-11	0.	0.	0.	0.	8.29E-14	6.40E-13	0.	0.	0.	0.	0.	0.	0.	6.48E-10
65 4.30 2.04E-11	0.	0.	0.	0.	3.13E-14	1.44E-13	0.	0.	0.	0.	0.	0.	0.	6.51E-10
66 4.20 6.09E-12	0.	0.	0.	0.	8.63E-15	2.34E-14	0.	0.	0.	0.	0.	0.	0.	6.50E-12
67 4.10 3.34E-12	0.	0.	0.	0.	3.46E-15	2.27E-14	0.	0.	0.	0.	0.	0.	0.	7.25E-10
68 4.00 8.11E-13	0.	0.	0.	0.	1.33E-15	5.34E-16	0.	0.	0.	0.	0.	0.	0.	7.80E-10
69 3.90 1.82E-13	0.	0.	0.	0.	3.07E-16	1.53E-15	0.	0.	0.	0.	0.	0.	0.	6.42E-10
70 3.80 1.27E-13	0.	0.	0.	0.	1.91E-16	0.	0.	0.	0.	0.	0.	0.	0.	9.18E-10
71 3.70 2.03E-14	0.	0.	0.	0.	2.51E-17	0.	0.	0.	0.	0.	0.	0.	0.	10.60E-10
72 3.60 7.18E-15	0.	0.	0.	0.	2.19E-17	0.	0.	0.	0.	0.	0.	0.	0.	1.10E-09
73 3.50 2.87E-15	0.	0.	0.	0.	2.06E-18	0.	0.	0.	0.	0.	0.	0.	0.	1.21E-09
74 3.40 5.49E-16	0.	0.	0.	0.	1.96E-18	0.	0.	0.	0.	0.	0.	0.	0.	1.34E-09
75 3.30 1.93E-16	0.	0.	0.	0.	1.80E-19	0.	0.	0.	0.	0.	0.	0.	0.	1.39E-09
76 3.20 4.98E-17	0.	0.	0.	0.	1.38E-19	0.	0.	0.	0.	0.	0.	0.	0.	1.42E-09
77 3.10 1.12E-17	0.	0.	0.	0.	1.40E-20	0.	0.	0.	0.	0.	0.	0.	0.	1.43E-09
78 3.00 3.06E-18	0.	0.	0.	0.	7.92E-21	0.	0.	0.	0.	0.	0.	0.	0.	1.38E-09
79 2.90 6.95E-19	0.	0.	0.	0.	8.02E-22	0.	0.	0.	0.	0.	0.	0.	0.	1.34E-09
80 2.80 2.09E-19	0.	0.	0.	0.	1.51E-22	0.	0.	0.	0.	0.	0.	0.	0.	1.24E-09
81 2.70 2.50E-20	0.	0.	0.	0.	1.56E-24	0.	0.	0.	0.	0.	0.	0.	0.	1.13E-09
82 2.60 4.84E-22	0.	0.	0.	0.	1.45E-26	0.	0.	0.	0.	0.	0.	0.	0.	1.01E-09
83 2.50 4.94E-24	0.	0.	0.	0.	1.72E-28	0.	0.	0.	0.	0.	0.	0.	0.	8.75E-10
84 2.40 0.	0.	0.	0.	0.	1.54E-30	0.	0.	0.	0.	0.	0.	0.	0.	7.56E-10
85 2.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.92E-10
86 2.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.49E-10
87 2.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.28E-10
88 2.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.17E-10
89 1.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.43E-10
90 1.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.32E-11
91 1.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.65E-11
92 1.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.44E-11
93 1.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.97E-12
94 1.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95 1.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
96 1.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
97 1.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.46E-13
98 1.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.21E-14
99 0.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.38E-12
100 0.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.24E-15
101 0.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.34E-12
102 0.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.06E-14

TEMPERATURE (DEGREES K) 1000. DENSITY (GM/CC) 1.293E-07 (10.0E-03 NORMAL)

PHOTON ENERGY E.V.	02 S-R HANDS	02 S-R CONT.	N2 R-W NO. 1	NO BETA	NO GAMMA	NO 2	O- PHOTO-DEY (IONS)	FREE-FREE (IONS)	M P.E.	O P.E.	TOTAL AIR
1	10.79	0.	1.08E-13	0.	0.	0.	0.	0.	0.	0.	1.08E-13
2	13.66	0.	3.92E-14	0.	0.	0.	0.	0.	0.	0.	3.92E-14
3	19.50	0.	9.09E-15	0.	0.	0.	0.	0.	0.	0.	9.09E-15
4	10.43	0.	4.66E-15	0.	0.	0.	0.	0.	0.	0.	4.66E-15
5	10.30	0.	1.20E-15	0.	0.	0.	0.	0.	0.	0.	1.20E-15
6	10.20	0.	4.03E-16	0.	0.	0.	0.	0.	0.	0.	4.03E-16
7	10.10	0.	2.33E-16	0.	0.	0.	0.	0.	0.	0.	2.33E-16
8	10.00	0.	2.91E-17	0.	0.	0.	0.	0.	0.	0.	2.91E-17
9	9.90	0.	2.96E-17	0.	0.	0.	0.	0.	0.	0.	2.96E-17
10	9.80	0.	7.44E-18	0.	0.	0.	0.	0.	0.	0.	7.44E-18
11	9.70	0.	9.09E-19	0.	0.	0.	0.	0.	0.	0.	9.09E-19
12	9.60	0.	1.13E-18	0.	0.	0.	0.	0.	0.	0.	1.13E-18
13	9.50	0.	3.72E-04	0.	0.	0.	0.	0.	0.	0.	3.72E-04
14	9.40	0.	1.38E-03	0.	0.	0.	0.	0.	0.	0.	1.38E-03
15	9.30	0.	3.38E-03	0.	0.	0.	0.	0.	0.	0.	3.38E-03
16	9.20	0.	3.38E-03	0.	0.	0.	0.	0.	0.	0.	3.38E-03
17	9.10	0.	4.64E-03	0.	0.	0.	0.	0.	0.	0.	4.64E-03
18	9.00	0.	5.95E-03	0.	0.	0.	0.	0.	0.	0.	5.95E-03
19	8.90	0.	7.26E-03	0.	0.	0.	0.	0.	0.	0.	7.26E-03
20	8.80	0.	7.78E-03	0.	0.	0.	0.	0.	0.	0.	7.78E-03
21	8.70	0.	7.69E-03	0.	0.	0.	0.	0.	0.	0.	7.69E-03
22	8.60	0.	7.60E-03	0.	0.	0.	0.	0.	0.	0.	7.60E-03
23	8.50	0.	7.55E-03	0.	0.	0.	0.	0.	0.	0.	7.55E-03
24	8.40	0.	6.91E-03	0.	0.	0.	0.	0.	0.	0.	6.91E-03
25	8.30	0.	6.40E-03	0.	0.	0.	0.	0.	0.	0.	6.40E-03
26	8.20	0.	5.82E-03	0.	0.	0.	0.	0.	0.	0.	5.82E-03
27	8.10	0.	5.21E-03	0.	0.	0.	0.	0.	0.	0.	5.21E-03
28	8.00	0.	4.60E-03	0.	0.	0.	0.	0.	0.	0.	4.60E-03
29	7.90	0.	3.94E-03	0.	0.	0.	0.	0.	0.	0.	3.94E-03
30	7.80	0.	3.27E-03	0.	0.	0.	0.	0.	0.	0.	3.27E-03
31	7.70	0.	2.66E-03	0.	0.	0.	0.	0.	0.	0.	2.66E-03
32	7.60	0.	2.17E-03	0.	0.	0.	0.	0.	0.	0.	2.17E-03
33	7.50	0.	1.64E-03	0.	0.	0.	0.	0.	0.	0.	1.64E-03
34	7.40	0.	1.24E-03	0.	0.	0.	0.	0.	0.	0.	1.24E-03
35	7.30	0.	8.95E-04	0.	0.	0.	0.	0.	0.	0.	8.95E-04
36	7.20	0.	6.79E-04	0.	0.	0.	0.	0.	0.	0.	6.79E-04
37	7.10	0.	4.74E-04	0.	0.	0.	0.	0.	0.	0.	4.74E-04
38	7.00	0.	4.06E-05	0.	0.	0.	0.	0.	0.	0.	4.06E-05
39	6.90	0.	3.10E-03	0.	0.	0.	0.	0.	0.	0.	3.10E-03
40	6.80	0.	2.11E-05	0.	0.	0.	0.	0.	0.	0.	2.11E-05
41	6.70	0.	2.16E-04	0.	0.	0.	0.	0.	0.	0.	2.16E-04</

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		1000.		DENSITY (GM/CC) 1.293E-07 (10.0E-05 NORMAL)		0		0		TOTAL AIR	
PHOTON 02 5-R		1ST POS.		2ND POS.		1ST NEG.		2ND NEG.		P.F.	
ENERGY BANDS		1ST POS.		2ND POS.		1ST NEG.		2ND NEG.		P.F.	
52		5.40		8.15E-08		0.		0.		0.	
53		5.50		5.01E-08		0.		0.		0.	
54		5.40		1.65E-08		0.		0.		0.	
55		5.30		8.17E-09		0.		0.		0.	
56		5.20		9.54E-10		0.		0.		0.	
57		5.10		8.14E-10		0.		0.		0.	
58		5.00		5.19E-10		0.		0.		0.	
59		4.90		3.92E-10		0.		0.		0.	
60		4.80		2.12E-10		0.		0.		0.	
61		4.70		9.60E-11		0.		0.		0.	
62		4.60		4.33E-11		0.		0.		0.	
63		4.50		1.50E-11		0.		0.		0.	
64		4.40		5.17E-12		0.		0.		0.	
65		4.30		2.04E-12		0.		0.		0.	
66		4.20		6.09E-13		0.		0.		0.	
67		4.10		3.34E-13		0.		0.		0.	
68		4.00		8.17E-14		0.		0.		0.	
69		3.90		1.82E-14		0.		0.		0.	
70		3.80		1.27E-14		0.		0.		0.	
71		3.70		2.08E-15		0.		0.		0.	
72		3.60		7.18E-16		0.		0.		0.	
73		3.50		2.07E-16		0.		0.		0.	
74		3.40		5.45E-17		0.		0.		0.	
75		3.30		1.93E-17		0.		0.		0.	
76		3.20		4.90E-18		0.		0.		0.	
77		3.10		1.12E-18		0.		0.		0.	
78		3.00		3.64E-19		0.		0.		0.	
79		2.90		6.95E-20		0.		0.		0.	
80		2.80		2.05E-20		0.		0.		0.	
81		2.70		2.50E-21		0.		0.		0.	
82		2.60		4.44E-23		0.		0.		0.	
83		2.50		4.94E-25		0.		0.		0.	
84		2.40		0.		0.		0.		0.	
85		2.30		0.		0.		0.		0.	
86		2.20		0.		0.		0.		0.	
87		2.10		0.		0.		0.		0.	
88		2.00		0.		0.		0.		0.	
89		1.90		0.		0.		0.		0.	
90		1.80		0.		0.		0.		0.	
91		1.70		0.		0.		0.		0.	
92		1.60		0.		0.		0.		0.	
93		1.50		0.		0.		0.		0.	
94		1.40		0.		0.		0.		0.	
95		1.30		0.		0.		0.		0.	
96		1.20		0.		0.		0.		0.	
97		1.10		0.		0.		0.		0.	
98		1.00		0.		0.		0.		0.	
99		0.90		0.		0.		0.		0.	
100		0.80		0.		0.		0.		0.	
101		0.70		0.		0.		0.		0.	
102		0.60		0.		0.		0.		0.	

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		1000.	DENSITY (GM/CC)		1.233E-08 (10.3E-06 NORMAL)		NO		O- PHOTO-DEY (IONS)		N		O	
PHOTON 02 S-R		02 5-R	NO		AO		NO		O- PHOTO-DEY (IONS)		N		O	
ENERGY BANDS		CONT.	RETA		GAMMA		NO		O- PHOTO-DEY (IONS)		N		O	
E.V.			NO		GAMMA		NO		O- PHOTO-DEY (IONS)		N		O	
			RETA		GAMMA		NO		O- PHOTO-DEY (IONS)		N		O	
1	10.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.08E-14
2	10.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.92E-15
3	10.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.09E-16
4	10.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.66E-16
5	10.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.20E-16
6	10.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.03E-17
7	10.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.33E-17
8	10.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.91E-18
9	9.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.04E-18
10	9.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.44E-19
11	9.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.89E-20
12	9.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.13E-19
13	9.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.72E-05
14	9.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.38E-04
15	9.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.38E-04
16	9.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.38E-04
17	9.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.44E-04
18	9.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.95E-04
19	8.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.26E-04
20	8.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.78E-04
21	8.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.69E-04
22	8.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.80E-04
23	8.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.80E-04
24	8.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.39E-04
25	8.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.91E-04
26	8.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.46E-04
27	8.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.95E-04
28	8.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.48E-04
29	7.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.21E-04
30	7.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.60E-04
31	7.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.94E-04
32	7.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.27E-04
33	7.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.61E-04
34	7.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.11E-04
35	7.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.68E-04
36	7.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.26E-04
37	7.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.95E-05
38	7.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.79E-05
39	6.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.74E-05
40	6.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.06E-05
41	6.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.06E-05
42	6.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.11E-06
43	6.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.59E-07
44	6.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.69E-07
45	6.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.13E-07
46	6.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.97E-07
47	6.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.54E-07
48	6.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.74E-07
49	5.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.28E-07
50	5.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.41E-07
51	5.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.44E-08
52	5.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.14E-08
53	5.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.57E-09

TEMPERATURE (DEGREES K) 1000. DENSITY (GM/CC) 1.293E-08 (10.0E-06 NORMAL)

PHOTON ENERGY	BANDS	1ST POS.	2ND POS.	N2	N24 1ST NEG.	NO BETA	NO GAMMA	NO VIB-ROT	NO 2	0- PHOTO-DET	FREE-FREE (IONS)	N P.E.	0 P.E.	TOTAL AIR
52	5.60	8.15E-09	0.	0.	0.	8.48E-13	9.83E-11	0.	0.	0.	0.	0.	0.	8.25E-09
53	5.50	5.01E-09	0.	0.	0.	8.45E-12	3.74E-09	0.	0.	0.	0.	0.	0.	8.28E-09
54	5.40	1.63E-09	0.	0.	0.	2.6E-12	1.51E-2	0.	0.	0.	0.	0.	0.	1.3E-09
55	5.30	8.17E-10	0.	0.	0.	4.33E-13	2.61E-10	0.	0.	0.	0.	0.	0.	1.0E-10
56	5.20	9.54E-11	0.	0.	0.	4.36E-13	1.77E-10	0.	0.	0.	0.	0.	0.	2.7E-10
57	5.10	8.14E-11	0.	0.	0.	1.6E-13	4.66E-12	0.	0.	0.	0.	0.	0.	8.6E-11
58	5.00	5.19E-11	0.	0.	0.	3.85E-14	2.78E-11	0.	0.	0.	0.	0.	0.	8.13E-11
59	4.90	3.92E-11	0.	0.	0.	2.36E-14	1.78E-13	0.	0.	0.	0.	0.	0.	3.9E-11
60	4.80	2.12E-11	0.	0.	0.	1.53E-14	8.9E-2	0.	0.	0.	0.	0.	0.	2.6E-11
61	4.70	9.60E-12	0.	0.	0.	1.53E-15	8.3E-15	0.	0.	0.	0.	0.	0.	1.1E-11
62	4.60	4.33E-12	0.	0.	0.	9.06E-15	1.24E-13	0.	0.	0.	0.	0.	0.	5.70E-12
63	4.50	1.50E-12	0.	0.	0.	2.35E-15	4.20E-16	0.	0.	0.	0.	0.	0.	2.7E-12
64	4.40	5.17E-13	0.	0.	0.	6.29E-16	6.40E-15	0.	0.	0.	0.	0.	0.	1.2E-12
65	4.30	2.04E-13	0.	0.	0.	3.15E-16	1.4E-15	0.	0.	0.	0.	0.	0.	8.1E-13
66	4.20	6.09E-14	0.	0.	0.	6.83E-17	2.3E-16	0.	0.	0.	0.	0.	0.	7.1E-13
67	4.10	3.34E-14	0.	0.	0.	3.48E-17	2.27E-16	0.	0.	0.	0.	0.	0.	7.5E-13
68	4.00	8.11E-15	0.	0.	0.	1.33E-17	5.36E-16	0.	0.	0.	0.	0.	0.	7.8E-13
69	3.90	1.82E-15	0.	0.	0.	3.07E-18	1.51E-17	0.	0.	0.	0.	0.	0.	8.4E-13
70	3.80	1.27E-15	0.	0.	0.	1.91E-18	0.	0.	0.	0.	0.	0.	0.	9.1E-13
71	3.70	2.03E-16	0.	0.	0.	2.5E-19	0.	0.	0.	0.	0.	0.	0.	1.0E-13
72	3.60	7.18E-17	0.	0.	0.	2.3E-19	0.	0.	0.	0.	0.	0.	0.	1.0E-13
73	3.50	2.67E-17	0.	0.	0.	2.0E-20	0.	0.	0.	0.	0.	0.	0.	1.0E-12
74	3.40	5.45E-18	0.	0.	0.	1.66E-20	0.	0.	0.	0.	0.	0.	0.	1.0E-12
75	3.30	1.93E-18	0.	0.	0.	1.40E-21	0.	0.	0.	0.	0.	0.	0.	1.3E-12
76	3.20	4.90E-19	0.	0.	0.	1.3E-21	0.	0.	0.	0.	0.	0.	0.	1.5E-12
77	3.10	1.12E-19	0.	0.	0.	1.0E-22	0.	0.	0.	0.	0.	0.	0.	1.2E-12
78	3.00	3.08E-20	0.	0.	0.	7.62E-23	0.	0.	0.	0.	0.	0.	0.	1.3E-12
79	2.90	6.95E-21	0.	0.	0.	6.02E-24	0.	0.	0.	0.	0.	0.	0.	1.4E-12
80	2.80	2.05E-21	0.	0.	0.	1.1E-24	0.	0.	0.	0.	0.	0.	0.	1.24E-12
81	2.70	2.50E-22	0.	0.	0.	1.5E-26	0.	0.	0.	0.	0.	0.	0.	1.1E-12
82	2.60	4.64E-24	0.	0.	0.	1.5E-26	0.	0.	0.	0.	0.	0.	0.	1.3E-12
83	2.50	4.94E-26	0.	0.	0.	1.7E-30	0.	0.	0.	0.	0.	0.	0.	8.7E-13
84	2.40	0.	0.	0.	0.	1.6E-32	0.	0.	0.	0.	0.	0.	0.	7.5E-13
85	2.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.92E-13
86	2.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.49E-13
87	2.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.26E-13
88	2.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.1E-13
89	1.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.4E-13
90	1.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.3E-14
91	1.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.6E-14
92	1.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.4E-14
93	1.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.9E-15
94	1.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95	1.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
96	1.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
97	1.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
98	1.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
99	0.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
100	0.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
101	0.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
102	0.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)										1000.		DENSITY (GM/CC)		1.293E-09		(10.0E-07 NORMAL)	
PHOTON 02 S-R		02 S-R		M2 B-M		NO		NO		NO		Q-		FREE-FREE		M	
ENERGY BANDS		CONT.		NO. 1		BETA		GAMMA		2		PHOTO-DET (IONS)		P.E.		P.F.	
E.V.																	
1	10.70	0.	1.08E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.08E-15
2	10.60	0.	3.92E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.92E-16
3	10.50	0.	9.09E-17	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.09E-17
4	10.40	0.	4.66E-17	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.66E-17
5	10.30	0.	1.20E-17	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.20E-17
6	10.20	0.	4.03E-18	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.03E-18
7	10.10	0.	2.33E-18	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.33E-18
8	10.00	0.	2.91E-19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.91E-19
9	9.90	0.	2.04E-19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.04E-19
10	9.80	0.	7.44E-20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.44E-20
11	9.70	0.	9.89E-21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.89E-21
12	9.60	0.	1.13E-20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.13E-20
13	9.50	0.	3.72E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.72E-04
14	9.40	0.	1.34E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.34E-09
15	9.30	0.	0.15	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.15
16	9.20	0.	3.34E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.34E-05
17	9.10	0.	4.64E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.64E-05
18	9.00	0.	5.94E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.94E-05
19	8.90	0.	7.24E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.24E-05
20	8.80	0.	7.78E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.78E-05
21	8.70	0.	7.69E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.69E-05
22	8.60	0.	7.60E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.60E-05
23	8.50	0.	7.35E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.35E-05
24	8.40	0.	6.91E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.91E-05
25	8.30	0.	6.40E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.40E-05
26	8.20	0.	5.82E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.82E-05
27	8.10	0.	5.21E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.21E-05
28	8.00	0.	4.60E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.60E-05
29	7.90	0.	3.94E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.94E-05
30	7.80	0.	3.27E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.27E-05
31	7.70	0.	2.64E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.64E-05
32	7.60	0.	2.17E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.17E-05
33	7.50	0.	1.64E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.64E-05
34	7.40	0.	1.24E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.24E-05
35	7.30	0.	8.95E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.95E-06
36	7.20	0.	6.70E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.70E-06
37	7.10	0.	4.74E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.74E-06
38	7.00	0.	4.06E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.06E-07
39	6.90	0.	3.30E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.30E-05
40	6.80	0.	2.11E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.11E-07
41	6.70	0.	8.49E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.49E-08
42	6.60	0.	3.68E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.68E-08
43	6.50	0.	1.12E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.12E-08
44	6.40	0.	1.96E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.96E-08
45	6.30	0.	2.01E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.01E-08
46	6.20	0.	1.74E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.74E-08
47	6.10	0.	2.23E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.23E-08
48	6.00	0.	1.80E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.80E-08
49	5.90	0.	9.83E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.83E-09
50	5.80	0.	4.05E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.05E-09
51	5.70	0.	9.56E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.56E-10

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON D2 S-R ENERGY BANDS		TEMPERATURE (DEGREES K)		1000.		DENSIT		1.293E-09		(10.0E-07 NORMAL)		0		TOTAL AIR	
1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	BETA	GAMMA	VIB-RCT	NO	2	PHOTO-DET	FREE-FREE	N	P.E.	P.E.		
52	5.40	8.15E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.05E-10	0.
53	5.50	5.01E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.08E-10	0.
54	5.40	1.63E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.43E-10	0.
55	5.30	8.17E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.08E-10	0.
56	5.20	9.54E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.72E-11	0.
57	5.10	8.14E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.43E-12	0.
58	5.00	5.19E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.00E-12	0.
59	4.90	3.92E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.06E-12	0.
60	4.80	2.12E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.73E-12	0.
61	4.70	9.60E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.79E-13	0.
62	4.60	4.33E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.43E-13	0.
63	4.50	1.59E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.40E-13	0.
64	4.40	5.17E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.22E-14	0.
65	4.30	2.04E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.05E-14	0.
66	4.20	6.09E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.74E-14	0.
67	4.10	3.34E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.52E-14	0.
68	4.00	8.11E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.55E-14	0.
69	3.90	1.82E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.08E-14	0.
70	3.80	1.27E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.02E-14	0.
71	3.70	2.03E-17	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.88E-14	0.
72	3.60	7.40E-18	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.48E-14	0.
73	3.50	2.87E-18	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.44E-14	0.
74	3.40	5.45E-19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.23E-14	0.
75	3.30	1.93E-19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.32E-14	0.
76	3.20	4.00E-20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.49E-14	0.
77	3.10	1.12E-20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.15E-14	0.
78	3.00	3.00E-21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.47E-14	0.
79	2.90	6.93E-22	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.24E-14	0.
80	2.80	2.05E-22	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.92E-14	0.
81	2.70	2.50E-23	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.57E-14	0.
82	2.60	4.84E-25	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.21E-14	0.
83	2.50	4.94E-27	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.77E-14	0.
84	2.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.39E-14	0.
85	2.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.87E-14	0.
86	2.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.42E-14	0.
87	2.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.04E-14	0.
88	2.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.85E-15	0.
89	1.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.52E-15	0.
90	1.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.63E-15	0.
91	1.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.47E-15	0.
92	1.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.73E-16	0.
93	1.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.15E-16	0.
94	1.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95	1.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
96	1.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
97	1.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
98	1.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
99	0.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
100	0.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
101	0.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
102	0.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY E.V.	02 S-R BANDS	02 S-R CONT.	TEMPERATURE (DEGREES K)		NO BETA	NO GAMMA	DENSITY (GM/CC)		NO 2	O- PHOTO-DET (IONS)	FREE-FREE P.E.	W P.E.	TOTAL AIR	
			12 D-W NO. 1	2000.			1.293E-02	(1.0E 01 NORMAL)					O	P.E.
1	10.70 0.	0.	4.04E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.04E-03	0.
2	10.60 0.	0.	2.10E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.10E-03	0.
3	10.50 0.	0.	1.33E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.33E-03	0.
4	10.40 0.	0.	8.68E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.68E-04	0.
5	10.30 0.	0.	4.08E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.08E-04	0.
6	10.20 0.	0.	2.78E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.78E-04	0.
7	10.10 0.	0.	1.88E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.88E-04	0.
8	10.00 0.	0.	8.98E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.98E-05	0.
9	9.90 0.	0.	6.20E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.20E-05	0.
10	9.80 0.	0.	3.44E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.44E-05	0.
11	9.70 0.	0.	1.31E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.31E-05	0.
12	9.60 0.	0.	1.44E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.44E-05	0.
13	9.50 0.	3.49E 01	4.64E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.49E 01	0.
14	9.40 0.	1.27E 02	3.14E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.27E 02	0.
15	9.30 0.	2.20E 02	2.49E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.20E 02	0.
16	9.20 0.	3.13E 02	6.08E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.13E 02	0.
17	9.10 0.	4.14E 02	9.14E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.14E 02	0.
18	9.00 0.	5.16E 02	2.89E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.16E 02	0.
19	8.90 0.	6.18E 02	1.92E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.18E 02	0.
20	8.80 0.	6.49E 02	1.25E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.49E 02	0.
21	8.70 0.	6.24E 02	4.15E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.24E 02	0.
22	8.60 0.	5.99E 02	4.70E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.99E 02	0.
23	8.50 0.	5.71E 02	1.37E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.71E 02	0.
24	8.40 0.	5.36E 02	1.34E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.36E 02	0.
25	8.30 0.	4.97E 02	4.43E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.97E 02	0.
26	8.20 0.	4.60E 02	3.48E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.60E 02	0.
27	8.10 0.	4.23E 02	1.42E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.23E 02	0.
28	8.00 0.	3.87E 02	9.81E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.87E 02	0.
29	7.90 0.	3.48E 02	4.24E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.48E 02	0.
30	7.80 0.	3.09E 02	3.03E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.09E 02	0.
31	7.70 0.	2.72E 02	1.42E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.72E 02	0.
32	7.60 0.	2.35E 02	7.94E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.35E 02	0.
33	7.50 0.	1.99E 02	4.08E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.99E 02	0.
34	7.40 0.	1.65E 02	2.10E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.65E 02	0.
35	7.30 0.	1.41E 02	1.10E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.41E 02	0.
36	7.20 0.	1.16E 02	5.53E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.16E 02	0.
37	7.10 0.	9.53E 01	2.98E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.53E 01	0.
38	7.00 0.	1.49E-12	1.49E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.49E-12	0.
39	6.90 0.	2.61E 00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.61E 00	0.
40	6.80 0.	1.42E 00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.42E 00	0.
41	6.70 0.	8.26E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.26E-01	0.
42	6.60 0.	3.84E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.84E-01	0.
43	6.50 0.	1.52E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.52E-01	0.
44	6.40 0.	2.78E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.78E-01	0.
45	6.30 0.	4.40E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.40E-01	0.
46	6.20 0.	6.03E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.03E-01	0.
47	6.10 0.	1.86E 00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.86E 00	0.
48	6.00 0.	2.63E 00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.63E 00	0.
49	5.90 0.	2.72E 00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.72E 00	0.
50	5.80 0.	2.34E 00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.34E 00	0.
51	5.70 0.	1.35E 00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.35E 00	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON O2 S-R ENERGY BANDS		TEMPERATURE (DEGREES K)		2000.		DENSITY (GM/CC) 1.293E-02 (1.0E 01 NORMAL)		FREE-PRFE		O		TOTAL AIR	
1ST POS.	2ND POS.	N2	N2	BETA	NO	GAMMA	VIB-ROT	NO	2	PHOTO-DET (IONS)	P.E.	P.E.	P.F.
52	5.60	1.30E-00	0.	0.	5.38E-03	1.51E-01	0.	0.	0.	0.	0.	1.48E-00	0.
53	5.50	9.98E-01	0.	0.	1.28E-02	6.74E-01	0.	0.	0.	0.	0.	1.48E-00	0.
54	5.40	6.58E-01	0.	0.	7.75E-03	1.86E-02	0.	0.	0.	0.	0.	6.78E-01	0.
55	5.30	4.50E-01	0.	0.	6.08E-03	2.22E-01	0.	0.	0.	0.	0.	2.29E-01	0.
56	5.20	1.45E-01	0.	0.	4.53E-03	7.99E-02	0.	0.	0.	0.	0.	1.59E-01	0.
57	5.10	1.10E-01	0.	0.	2.70E-03	3.31E-02	0.	0.	0.	0.	0.	1.38E-01	0.
58	5.00	7.10E-02	0.	0.	1.43E-03	5.70E-02	0.	0.	0.	0.	0.	7.45E-02	0.
59	4.90	6.00E-02	0.	0.	1.18E-03	7.15E-03	0.	0.	0.	0.	0.	7.22E-02	0.
60	4.80	5.33E-02	0.	0.	1.31E-03	1.62E-02	0.	0.	0.	0.	0.	4.78E-02	0.
61	4.70	3.88E-02	0.	0.	6.38E-04	1.86E-03	0.	0.	0.	0.	0.	4.17E-02	0.
62	4.60	3.01E-02	0.	0.	6.11E-04	4.34E-03	0.	0.	0.	0.	0.	2.43E-02	0.
63	4.50	1.87E-02	0.	1.17E-17	3.49E-04	3.91E-04	0.	0.	0.	0.	0.	1.98E-02	0.
64	4.40	1.10E-02	0.	3.13E-16	2.27E-04	9.77E-04	0.	0.	0.	0.	0.	1.43E-02	0.
65	4.30	6.77E-03	0.	4.45E-17	1.40E-04	1.70E-04	0.	0.	0.	0.	0.	1.18E-02	0.
66	4.20	4.01E-03	0.	2.47E-15	9.09E-05	1.75E-04	0.	0.	0.	0.	0.	1.04E-02	0.
67	4.10	2.88E-03	0.	2.34E-17	5.20E-05	6.55E-05	0.	0.	0.	0.	0.	9.11E-03	0.
68	4.00	1.44E-03	0.	2.52E-15	3.48E-05	1.41E-05	0.	0.	0.	0.	0.	8.78E-03	0.
69	3.90	6.57E-04	0.	3.41E-15	1.53E-05	1.57E-05	0.	0.	0.	0.	0.	8.22E-03	0.
70	3.80	5.73E-04	0.	3.75E-16	1.41E-05	0.	0.	0.	0.	0.	0.	8.10E-03	0.
71	3.70	2.28E-04	0.	5.78E-15	4.39E-06	0.	0.	0.	0.	0.	0.	8.77E-03	0.
72	3.60	1.34E-04	0.	1.03E-16	5.00E-06	0.	0.	0.	0.	0.	0.	9.15E-03	0.
73	3.50	8.00E-05	0.	1.46E-15	1.30E-06	0.	0.	0.	0.	0.	0.	9.29E-03	0.
74	3.40	3.68E-05	0.	3.35E-17	1.43E-06	0.	0.	0.	0.	0.	0.	1.00E-02	0.
75	3.30	2.03E-05	0.	2.23E-16	4.09E-07	0.	0.	0.	0.	0.	0.	1.06E-02	0.
76	3.20	9.50E-06	0.	6.93E-16	3.84E-07	0.	0.	0.	0.	0.	0.	1.07E-02	0.
77	3.10	4.98E-06	0.	3.12E-17	1.40E-07	0.	0.	0.	0.	0.	0.	1.05E-02	0.
78	3.00	2.49E-06	0.	1.83E-18	8.06E-08	0.	0.	0.	0.	0.	0.	1.02E-02	0.
79	2.90	1.07E-06	0.	3.23E-18	2.30E-08	0.	0.	0.	0.	0.	0.	9.73E-03	0.
80	2.80	6.73E-07	0.	2.53E-19	6.10E-09	0.	0.	0.	0.	0.	0.	9.20E-03	0.
81	2.70	1.68E-07	0.	2.50E-19	6.10E-10	0.	0.	0.	0.	0.	0.	8.63E-03	0.
82	2.60	2.06E-08	0.	3.89E-20	5.65E-11	0.	0.	0.	0.	0.	0.	7.89E-03	0.
83	2.50	7.45E-10	0.	1.74E-20	4.73E-12	0.	0.	0.	0.	0.	0.	7.22E-03	0.
84	2.40	0.	0.	2.37E-17	2.19E-13	0.	0.	0.	0.	0.	0.	6.31E-03	0.
85	2.30	0.	0.	3.12E-15	0.	0.	0.	0.	0.	0.	0.	5.43E-03	0.
86	2.20	0.	0.	3.41E-15	0.	0.	0.	0.	0.	0.	0.	4.53E-03	0.
87	2.10	0.	0.	3.45E-14	0.	0.	0.	0.	0.	0.	0.	3.43E-03	0.
88	2.00	0.	0.	3.95E-14	0.	0.	0.	0.	0.	0.	0.	2.60E-03	0.
89	1.90	0.	0.	3.46E-13	0.	0.	0.	0.	0.	0.	0.	1.74E-03	0.
90	1.80	0.	0.	1.46E-12	0.	0.	0.	0.	0.	0.	0.	1.11E-03	0.
91	1.70	0.	0.	4.14E-13	0.	0.	0.	0.	0.	0.	0.	6.85E-04	0.
92	1.60	0.	0.	9.30E-13	0.	0.	0.	0.	0.	0.	0.	2.81E-04	0.
93	1.50	0.	0.	3.47E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.
94	1.40	0.	0.	1.86E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.
95	1.30	0.	0.	2.43E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.
96	1.20	0.	0.	1.55E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.
97	1.10	0.	0.	1.82E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.
98	1.00	0.	0.	5.11E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.
99	0.90	0.	0.	1.15E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.
100	0.80	0.	0.	6.27E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
101	0.70	0.	0.	1.04E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
102	0.60	0.	0.	1.19E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY E.V.	O2 S-R BANDS CONT.	TEMPERATURE (DEGREES K)	2000. NO BETA	NO GAMMA	DENSITY (GM/CC)	1.2932-03 (10.62-81 NORMAL)	FREE-FREE P.E.			TOTAL AIR
							NO	0- 2	PHOTO-DEY (IONS)	
1	10.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	4.04E-04
2	10.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	2.13E-04
3	10.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.33E-04
4	10.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	8.68E-05
5	10.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	4.80E-05
6	10.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	2.78E-05
7	10.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.80E-05
8	10.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	6.99E-06
9	9.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	4.20E-06
10	9.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	3.44E-06
11	9.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.31E-06
12	9.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.31E-06
13	9.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.44E-06
14	9.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	3.44E-06
15	9.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.27E-06
16	9.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	2.20E-06
17	9.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	3.13E-06
18	9.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	4.14E-06
19	8.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	5.14E-06
20	8.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	6.18E-06
21	8.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	6.49E-06
22	8.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	6.24E-06
23	8.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	5.99E-06
24	8.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	5.71E-06
25	8.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	5.36E-06
26	8.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	4.98E-06
27	8.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	4.68E-06
28	8.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	4.23E-06
29	7.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	3.87E-06
30	7.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	3.48E-06
31	7.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	3.09E-06
32	7.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	2.72E-06
33	7.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	2.35E-06
34	7.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.99E-06
35	7.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.63E-06
36	7.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.41E-06
37	7.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.18E-06
38	7.00 1.83E-01	0.	0.	0.	0.	0.	0.	0.	0.	9.53E-07
39	6.90 2.41E-01	0.	0.	0.	0.	0.	0.	0.	0.	7.77E-07
40	6.80 1.42E-01	0.	0.	0.	0.	0.	0.	0.	0.	6.00E-07
41	6.70 8.28E-02	0.	0.	0.	0.	0.	0.	0.	0.	4.72E-07
42	6.60 1.84E-02	0.	0.	0.	0.	0.	0.	0.	0.	3.87E-07
43	6.50 1.52E-02	0.	0.	0.	0.	0.	0.	0.	0.	3.02E-07
44	6.40 2.78E-02	0.	0.	0.	0.	0.	0.	0.	0.	2.45E-07
45	6.30 4.40E-02	0.	0.	0.	0.	0.	0.	0.	0.	1.95E-07
46	6.20 8.03E-02	0.	0.	0.	0.	0.	0.	0.	0.	1.54E-07
47	6.10 1.86E-01	0.	0.	0.	0.	0.	0.	0.	0.	1.01E-07
48	6.00 2.83E-01	0.	0.	0.	0.	0.	0.	0.	0.	6.05E-08
49	5.90 2.72E-01	0.	0.	0.	0.	0.	0.	0.	0.	3.37E-08
50	5.80 2.34E-01	0.	0.	0.	0.	0.	0.	0.	0.	2.82E-08
51	5.70 1.35E-01	0.	0.	0.	0.	0.	0.	0.	0.	2.56E-08

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON O2 SR ENERGY BANDS		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-03 (10.0E-01 NORMAL)		O- PHOTO-DET (ICMS)		M P.E.		O P.F.		TOTAL AIR	
1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.
52	5.60	1.30E-01	0.	0.	0.	5.38E-04	1.51E-02	0.	0.	0.	0.	0.	0.	1.46E-01	0.
53	5.50	9.98E-02	0.	0.	0.	1.28E-03	6.74E-02	0.	0.	0.	0.	0.	0.	1.68E-01	0.
54	5.40	6.50E-02	0.	0.	0.	7.75E-04	1.86E-03	0.	0.	0.	0.	0.	0.	6.84E-02	0.
55	5.30	4.50E-02	0.	0.	0.	6.08E-04	2.22E-02	0.	0.	0.	0.	0.	0.	6.78E-02	0.
56	5.20	1.45E-02	0.	0.	0.	4.53E-04	7.99E-03	0.	0.	0.	0.	0.	0.	2.29E-02	0.
57	5.10	1.18E-02	0.	0.	0.	2.70E-04	1.31E-03	0.	0.	0.	0.	0.	0.	1.55E-02	0.
58	5.00	2.18E-03	0.	0.	0.	1.43E-04	5.70E-03	0.	0.	0.	0.	0.	0.	1.31E-02	0.
59	4.90	6.08E-03	0.	0.	0.	1.18E-04	1.15E-04	0.	0.	0.	0.	0.	0.	7.03E-03	0.
60	4.80	5.33E-03	0.	0.	0.	1.31E-04	1.62E-03	0.	0.	0.	0.	0.	0.	7.20E-03	0.
61	4.70	3.86E-03	0.	0.	0.	8.36E-05	1.62E-04	0.	0.	0.	0.	0.	0.	4.33E-03	0.
62	4.60	3.01E-03	0.	0.	0.	6.11E-05	4.34E-04	0.	0.	0.	0.	0.	0.	3.72E-03	0.
63	4.50	1.87E-03	0.	0.	0.	3.49E-05	3.93E-05	0.	0.	0.	0.	0.	0.	2.16E-03	0.
64	4.40	1.16E-03	0.	0.	0.	2.27E-05	9.77E-05	0.	0.	0.	0.	0.	0.	1.58E-03	0.
65	4.30	6.77E-04	0.	0.	0.	1.40E-05	1.70E-05	0.	0.	0.	0.	0.	0.	9.35E-04	0.
66	4.20	4.01E-04	0.	0.	0.	9.09E-06	1.78E-05	0.	0.	0.	0.	0.	0.	6.98E-04	0.
67	4.10	2.69E-04	0.	0.	0.	5.20E-06	6.55E-06	0.	0.	0.	0.	0.	0.	5.20E-04	0.
68	4.00	1.44E-04	0.	0.	0.	3.46E-06	1.40E-06	0.	0.	0.	0.	0.	0.	3.96E-04	0.
69	3.90	6.97E-05	0.	0.	0.	1.53E-06	1.57E-06	0.	0.	0.	0.	0.	0.	3.25E-04	0.
70	3.80	5.73E-05	0.	0.	0.	1.41E-06	0.	0.	0.	0.	0.	0.	0.	3.01E-04	0.
71	3.70	2.89E-05	0.	0.	0.	4.39E-07	0.	0.	0.	0.	0.	0.	0.	3.03E-04	0.
72	3.60	1.54E-05	0.	0.	0.	9.00E-07	0.	0.	0.	0.	0.	0.	0.	3.03E-04	0.
73	3.50	8.00E-06	0.	0.	0.	1.30E-07	0.	0.	0.	0.	0.	0.	0.	3.11E-04	0.
74	3.40	3.66E-06	0.	0.	0.	1.49E-07	0.	0.	0.	0.	0.	0.	0.	3.21E-04	0.
75	3.30	2.03E-06	0.	0.	0.	4.09E-08	0.	0.	0.	0.	0.	0.	0.	3.29E-04	0.
76	3.20	9.50E-07	0.	0.	0.	3.84E-08	0.	0.	0.	0.	0.	0.	0.	3.36E-04	0.
77	3.10	4.94E-07	0.	0.	0.	1.40E-08	0.	0.	0.	0.	0.	0.	0.	3.48E-04	0.
78	3.00	2.45E-07	0.	0.	0.	8.88E-09	0.	0.	0.	0.	0.	0.	0.	3.52E-04	0.
79	2.90	1.07E-07	0.	0.	0.	2.30E-09	0.	0.	0.	0.	0.	0.	0.	3.53E-04	0.
80	2.80	6.73E-08	0.	0.	0.	6.10E-10	0.	0.	0.	0.	0.	0.	0.	3.08E-04	0.
81	2.70	1.68E-08	0.	0.	0.	4.10E-11	0.	0.	0.	0.	0.	0.	0.	2.91E-04	0.
82	2.60	2.68E-09	0.	0.	0.	5.65E-12	0.	0.	0.	0.	0.	0.	0.	2.73E-04	0.
83	2.50	7.45E-11	0.	0.	0.	4.73E-13	0.	0.	0.	0.	0.	0.	0.	2.50E-04	0.
84	2.40	0.	0.	0.	0.	2.19E-14	0.	0.	0.	0.	0.	0.	0.	2.28E-04	0.
85	2.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.99E-04	0.
86	2.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.72E-04	0.
87	2.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.43E-04	0.
88	2.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.08E-04	0.
89	1.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.22E-05	0.
90	1.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.49E-05	0.
91	1.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.51E-05	0.
92	1.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.16E-05	0.
93	1.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.90E-06	0.
94	1.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.46E-06	0.
95	1.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.43E-06	0.
96	1.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.59E-06	0.
97	1.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.48E-08	0.
98	1.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.87E-08	0.
99	0.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.88E-07	0.
100	0.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.99E-07	0.
101	0.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.92E-06	0.
102	0.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.08E-06	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY BANDS E.V.		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		2000. (10.0E-02 NORMAL)		0		TOTAL AIR	
02 S-R	02 S-R	NO. 1	NO. 2	BETA	AD GAMMA	NO. 2	PHOTO-DEY (ICMS)	FREE-FREE	M	P.E.	P.E.
CONT.	CONT.										
1 10.70 0.	0.	4.06E-05	0.	0.	0.	0.	0.	0.	0.	0.	4.06E-05
2 10.60 0.	0.	2.13E-05	0.	0.	0.	0.	0.	0.	0.	0.	2.13E-05
3 10.50 0.	0.	1.33E-05	0.	0.	0.	0.	0.	0.	0.	0.	1.33E-05
4 10.40 0.	0.	0.60E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.60E-06
5 10.30 0.	0.	4.06E-06	0.	0.	0.	0.	0.	0.	0.	0.	4.06E-06
6 10.20 0.	0.	2.78E-06	0.	0.	0.	0.	0.	0.	0.	0.	2.78E-06
7 10.10 0.	0.	1.68E-06	0.	0.	0.	0.	0.	0.	0.	0.	1.68E-06
8 10.00 0.	0.	8.90E-07	0.	0.	0.	0.	0.	0.	0.	0.	8.90E-07
9 9.90 0.	0.	3.44E-07	0.	0.	0.	0.	0.	0.	0.	0.	3.44E-07
10 9.80 0.	0.	1.31E-07	0.	0.	0.	0.	0.	0.	0.	0.	1.31E-07
11 9.70 0.	0.	1.44E-07	0.	0.	0.	0.	0.	0.	0.	0.	1.44E-07
12 9.60 0.	0.	4.06E-08	0.	0.	0.	0.	0.	0.	0.	0.	4.06E-08
13 9.50 0.	0.	1.27E-08	0.	0.	0.	0.	0.	0.	0.	0.	1.27E-08
14 9.40 0.	0.	2.20E-08	0.	0.	0.	0.	0.	0.	0.	0.	2.20E-08
15 9.30 0.	0.	3.13E-08	0.	0.	0.	0.	0.	0.	0.	0.	3.13E-08
16 9.20 0.	0.	4.14E-08	0.	0.	0.	0.	0.	0.	0.	0.	4.14E-08
17 9.10 0.	0.	5.16E-08	0.	0.	0.	0.	0.	0.	0.	0.	5.16E-08
18 9.00 0.	0.	6.18E-08	0.	0.	0.	0.	0.	0.	0.	0.	6.18E-08
19 8.90 0.	0.	6.49E-08	0.	0.	0.	0.	0.	0.	0.	0.	6.49E-08
20 8.80 0.	0.	6.24E-08	0.	0.	0.	0.	0.	0.	0.	0.	6.24E-08
21 8.70 0.	0.	5.99E-08	0.	0.	0.	0.	0.	0.	0.	0.	5.99E-08
22 8.60 0.	0.	5.71E-08	0.	0.	0.	0.	0.	0.	0.	0.	5.71E-08
23 8.50 0.	0.	5.36E-08	0.	0.	0.	0.	0.	0.	0.	0.	5.36E-08
24 8.40 0.	0.	4.99E-08	0.	0.	0.	0.	0.	0.	0.	0.	4.99E-08
25 8.30 0.	0.	4.60E-08	0.	0.	0.	0.	0.	0.	0.	0.	4.60E-08
26 8.20 0.	0.	4.23E-08	0.	0.	0.	0.	0.	0.	0.	0.	4.23E-08
27 8.10 0.	0.	3.87E-08	0.	0.	0.	0.	0.	0.	0.	0.	3.87E-08
28 8.00 0.	0.	3.48E-08	0.	0.	0.	0.	0.	0.	0.	0.	3.48E-08
29 7.90 0.	0.	3.09E-08	0.	0.	0.	0.	0.	0.	0.	0.	3.09E-08
30 7.80 0.	0.	2.72E-08	0.	0.	0.	0.	0.	0.	0.	0.	2.72E-08
31 7.70 0.	0.	2.35E-08	0.	0.	0.	0.	0.	0.	0.	0.	2.35E-08
32 7.60 0.	0.	1.99E-08	0.	0.	0.	0.	0.	0.	0.	0.	1.99E-08
33 7.50 0.	0.	1.69E-08	0.	0.	0.	0.	0.	0.	0.	0.	1.69E-08
34 7.40 0.	0.	1.41E-08	0.	0.	0.	0.	0.	0.	0.	0.	1.41E-08
35 7.30 0.	0.	1.18E-08	0.	0.	0.	0.	0.	0.	0.	0.	1.18E-08
36 7.20 0.	0.	9.53E-09	0.	0.	0.	0.	0.	0.	0.	0.	9.53E-09
37 7.10 0.	0.	1.49E-09	0.	0.	0.	0.	0.	0.	0.	0.	1.49E-09
38 7.00 0.	0.	2.61E-09	0.	0.	0.	0.	0.	0.	0.	0.	2.61E-09
39 6.90 0.	0.	3.99E-09	0.	0.	0.	0.	0.	0.	0.	0.	3.99E-09
40 6.80 0.	0.	5.16E-09	0.	0.	0.	0.	0.	0.	0.	0.	5.16E-09
41 6.70 0.	0.	6.18E-09	0.	0.	0.	0.	0.	0.	0.	0.	6.18E-09
42 6.60 0.	0.	6.49E-09	0.	0.	0.	0.	0.	0.	0.	0.	6.49E-09
43 6.50 0.	0.	6.24E-09	0.	0.	0.	0.	0.	0.	0.	0.	6.24E-09
44 6.40 0.	0.	5.99E-09	0.	0.	0.	0.	0.	0.	0.	0.	5.99E-09
45 6.30 0.	0.	5.71E-09	0.	0.	0.	0.	0.	0.	0.	0.	5.71E-09
46 6.20 0.	0.	5.36E-09	0.	0.	0.	0.	0.	0.	0.	0.	5.36E-09
47 6.10 0.	0.	4.99E-09	0.	0.	0.	0.	0.	0.	0.	0.	4.99E-09
48 6.00 0.	0.	4.60E-09	0.	0.	0.	0.	0.	0.	0.	0.	4.60E-09
49 5.90 0.	0.	4.23E-09	0.	0.	0.	0.	0.	0.	0.	0.	4.23E-09
50 5.80 0.	0.	3.87E-09	0.	0.	0.	0.	0.	0.	0.	0.	3.87E-09
51 5.70 0.	0.	3.48E-09	0.	0.	0.	0.	0.	0.	0.	0.	3.48E-09

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PARTIAL D2 S-R EFFECT BANDS		TEMPERATURE (DEGREES K)		2000.		DENSITY (GM/CC)		1.293E-04 (18.0E-02 NORMAL)		0		TOTAL AIR	
1ST POS	M2	2ND POS	M2	N2	BETA	NC	GAMMA	VIB-ROT	NO	D-	FREE-FREE	N	P.E.
1ST POS	M2	2ND POS	M2	N2	BETA	NC	GAMMA	VIB-ROT	NO	D-	FREE-FREE	N	P.E.
52	5.65	1.30E-02	0.	0.	5.30E-05	1.51E-03	0.	0.	0.	0.	0.	0.	1.44E-02
53	5.55	9.9E-03	0.	0.	1.0E-04	6.7E-03	0.	0.	0.	0.	0.	0.	1.68E-02
54	5.45	6.5E-03	0.	0.	7.5E-05	1.80E-04	0.	0.	0.	0.	0.	0.	6.64E-03
55	5.35	4.50E-03	0.	0.	6.0E-05	2.2E-03	0.	0.	0.	0.	0.	0.	6.78E-03
56	5.25	3.45E-03	0.	0.	4.5E-05	1.99E-04	0.	0.	0.	0.	0.	0.	2.29E-03
57	5.15	1.17E-03	0.	0.	2.70E-05	3.51E-04	0.	5.70E-06	0.	0.	0.	0.	1.54E-03
58	5.05	7.10E-04	0.	0.	1.45E-05	5.70E-04	0.	5.90E-06	0.	0.	0.	0.	1.30E-03
59	4.95	5.99E-04	0.	0.	1.8E-05	7.15E-03	0.	6.1E-06	0.	0.	0.	0.	6.89E-04
60	4.85	5.33E-04	0.	0.	1.5E-05	1.01E-04	0.	6.3E-06	0.	0.	0.	0.	7.14E-04
61	4.75	3.80E-04	0.	0.	8.50E-06	1.82E-03	0.	6.50E-06	0.	0.	0.	0.	4.19E-04
62	4.65	3.01E-04	0.	0.	6.11E-06	4.34E-03	0.	6.60E-06	0.	0.	0.	0.	3.57E-04
63	4.55	1.87E-04	0.	1.17E-19	3.45E-06	3.93E-06	0.	6.80E-06	0.	0.	0.	0.	2.61E-04
64	4.45	1.14E-04	0.	3.13E-18	2.27E-06	9.74E-06	0.	7.00E-06	0.	0.	0.	0.	1.35E-04
65	4.35	6.75E-05	0.	4.43E-19	1.40E-06	1.70E-06	0.	7.1E-06	0.	0.	0.	0.	7.79E-05
66	4.25	4.00E-05	0.	2.47E-17	8.0E-07	1.7E-06	0.	7.3E-06	0.	0.	0.	0.	5.01E-05
67	4.15	2.69E-05	0.	2.32E-19	5.0E-07	6.5E-07	0.	7.50E-06	0.	0.	0.	0.	3.56E-05
68	4.05	1.44E-05	0.	2.52E-17	3.40E-07	1.40E-07	0.	7.80E-06	0.	0.	0.	0.	2.27E-05
69	3.95	6.57E-06	0.	3.41E-17	1.55E-07	1.57E-07	0.	8.00E-06	0.	0.	0.	0.	1.50E-05
70	3.85	3.73E-06	0.	3.57E-16	1.5E-07	0.	0.	8.4E-06	0.	0.	0.	0.	1.43E-05
71	3.75	2.20E-06	0.	5.75E-17	4.9E-08	0.	0.	8.7E-06	0.	0.	0.	0.	1.11E-05
72	3.65	1.34E-06	0.	1.03E-18	4.0E-08	0.	0.	9.1E-06	0.	0.	0.	0.	1.05E-05
73	3.55	6.00E-07	0.	1.46E-19	1.50E-08	0.	0.	9.50E-06	0.	0.	0.	0.	1.04E-05
74	3.45	3.65E-07	0.	3.35E-19	1.49E-08	0.	0.	1.00E-05	0.	0.	0.	0.	1.24E-05
75	3.35	2.03E-07	0.	2.33E-18	4.0E-09	0.	0.	1.03E-05	0.	0.	0.	0.	1.05E-05
76	3.25	9.58E-08	0.	6.83E-20	3.3E-09	0.	0.	1.0E-05	0.	0.	0.	0.	1.07E-05
77	3.15	4.94E-08	0.	3.12E-19	1.70E-09	0.	0.	1.0E-05	0.	0.	0.	0.	1.08E-05
78	3.05	2.45E-08	0.	1.83E-20	8.0E-10	0.	0.	1.0E-05	0.	0.	0.	0.	1.05E-05
79	2.95	1.07E-08	0.	3.22E-20	2.50E-10	0.	0.	1.02E-05	0.	0.	0.	0.	1.02E-05
80	2.85	6.73E-09	0.	2.53E-21	6.00E-11	0.	0.	9.7E-06	0.	0.	0.	0.	9.73E-06
81	2.75	1.68E-09	0.	2.90E-21	4.09E-12	0.	0.	9.20E-06	0.	0.	0.	0.	9.20E-06
82	2.65	2.04E-10	0.	3.63E-22	5.85E-13	0.	0.	8.6E-06	0.	0.	0.	0.	8.63E-06
83	2.55	7.44E-12	0.	1.74E-22	4.73E-14	0.	0.	7.80E-06	0.	0.	0.	0.	7.80E-06
84	2.45	0.	0.	2.27E-19	2.10E-15	0.	0.	7.2E-06	0.	0.	0.	0.	7.21E-06
85	2.35	0.	0.	3.12E-17	0.	0.	0.	6.3E-06	0.	0.	0.	0.	6.30E-06
86	2.25	0.	0.	3.41E-17	0.	0.	0.	5.4E-06	0.	0.	0.	0.	5.43E-06
87	2.15	0.	0.	3.14E-16	0.	0.	0.	4.5E-06	0.	0.	0.	0.	4.52E-06
88	2.05	0.	0.	3.46E-15	0.	0.	0.	3.6E-06	0.	0.	0.	0.	3.60E-06
89	1.95	0.	0.	1.46E-14	0.	0.	0.	2.7E-06	0.	0.	0.	0.	2.73E-06
90	1.85	0.	0.	4.14E-15	0.	0.	0.	1.1E-06	0.	0.	0.	0.	1.11E-06
91	1.75	0.	0.	9.30E-15	0.	0.	0.	6.8E-07	0.	0.	0.	0.	6.84E-07
92	1.65	0.	0.	3.47E-15	0.	0.	0.	2.8E-07	0.	0.	0.	0.	2.81E-07
93	1.55	0.	0.	1.86E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
94	1.45	0.	0.	2.43E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
95	1.35	0.	0.	1.59E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
96	1.25	0.	0.	1.02E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.
97	1.15	0.	0.	5.10E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.
98	1.05	0.	0.	1.15E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.
99	0.95	0.	0.	6.32E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.
100	0.85	0.	0.	1.04E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.
101	0.75	0.	0.	1.10E-21	0.	0.	0.	0.	0.	0.	0.	0.	0.
102	0.65	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)				2000.		DENSITY (GM/CC)		1.293E-05 (13.5E-03 NORMAL)		C- FREQ-FREE		M		O	
PHOTO 02 5-R		UP 3-R		N2 B-M		NO		NO		2		PHOTO-DET (IONS)		P.E.	
ENERG: BANDS		CON.		NO. 1		BETA		GAMMA		NO		P.E.		TOTAL AIR	
E.V.															
1	10.70	0.	0.	4.00E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.00E-06	0.
2	10.60	0.	0.	2.13E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.13E-06	0.
3	10.50	0.	0.	1.33E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.33E-06	0.
4	10.40	0.	0.	8.61E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.61E-07	0.
5	10.30	0.	0.	4.08E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.08E-07	0.
6	10.20	0.	0.	2.78E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.78E-07	0.
7	10.10	0.	0.	1.88E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.88E-07	0.
8	10.00	0.	0.	6.99E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.99E-08	0.
9	9.90	0.	0.	6.20E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.20E-08	0.
10	9.80	0.	0.	3.44E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.44E-08	0.
11	9.70	0.	0.	1.31E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.31E-08	0.
12	9.60	0.	0.	1.44E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.44E-08	0.
13	9.50	0.	0.	3.44E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.44E-02	0.
14	9.40	0.	0.	1.27E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.27E-01	0.
15	9.30	0.	0.	2.20E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.20E-01	0.
16	9.20	0.	0.	3.13E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.13E-01	0.
17	9.10	0.	0.	4.14E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.14E-01	0.
18	9.00	0.	0.	5.16E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.16E-01	0.
19	8.90	0.	0.	6.18E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.18E-01	0.
20	8.80	0.	0.	6.49E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.49E-01	0.
21	8.70	0.	0.	6.24E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.24E-01	0.
22	8.60	0.	0.	5.99E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.99E-01	0.
23	8.50	0.	0.	5.71E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.71E-01	0.
24	8.40	0.	0.	5.33E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.33E-01	0.
25	8.30	0.	0.	4.98E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.98E-01	0.
26	8.20	0.	0.	4.60E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.60E-01	0.
27	8.10	0.	0.	4.23E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.23E-01	0.
28	8.00	0.	0.	3.87E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.87E-01	0.
29	7.90	0.	0.	3.46E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.46E-01	0.
30	7.80	0.	0.	3.09E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.09E-01	0.
31	7.70	0.	0.	2.72E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.72E-01	0.
32	7.60	0.	0.	2.35E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.35E-01	0.
33	7.50	0.	0.	1.99E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.99E-01	0.
34	7.40	0.	0.	1.69E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.69E-01	0.
35	7.30	0.	0.	1.41E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.41E-01	0.
36	7.20	0.	0.	1.16E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.16E-01	0.
37	7.10	0.	0.	9.53E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.53E-02	0.
38	7.00	0.	0.	7.60E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.60E-03	0.
39	6.90	0.	0.	6.00E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.00E-03	0.
40	6.80	0.	0.	4.00E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.00E-03	0.
41	6.70	0.	0.	3.00E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.00E-03	0.
42	6.60	0.	0.	2.00E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.00E-03	0.
43	6.50	0.	0.	1.00E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-03	0.
44	6.40	0.	0.	0.50E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.50E-03	0.
45	6.30	0.	0.	0.25E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.25E-03	0.
46	6.20	0.	0.	0.125E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.125E-03	0.
47	6.10	0.	0.	0.0625E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0625E-03	0.
48	6.00	0.	0.	0.03125E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.03125E-03	0.
49	5.90	0.	0.	0.015625E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.015625E-03	0.
50	5.80	0.	0.	0.0078125E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.0078125E-03	0.
51	5.70	0.	0.	0.00390625E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.00390625E-03	0.

TEMPERATURE (DEGREES K) 2600. DENSITY (GM/CC) 1.293E-04 (10.0E-03 NORMAL)

PHOTON Q2 S-R ENERGY BANDS	N2 1ST POS.	N2 2ND POS.	N2 1ST DEG.	N2 BETA	N2 GAMMA	N2 VIB-ROT	N2 NO	N2 PHOTO-DEY	N2 FREE-FREE (IONS)	N2 P.F.	N2 TOTAL AIR
52	5.60	1.30E-03	0.	0.	3.38E-06	1.51E-04	0.	0.	0.	0.	1.46E-03
53	5.50	9.96E-04	0.	0.	1.26E-05	6.73E-04	0.	0.	0.	0.	1.68E-03
54	5.45	6.57E-04	0.	0.	7.44E-06	1.88E-05	0.	0.	0.	0.	6.83E-04
55	5.30	4.49E-04	0.	0.	6.08E-06	2.22E-04	0.	0.	0.	0.	6.77E-04
56	5.20	1.44E-04	0.	0.	4.53E-06	7.99E-05	0.	0.	0.	0.	2.29E-04
57	5.10	1.17E-04	0.	0.	2.70E-06	3.31E-05	0.	1.02E-07	0.	0.	1.53E-04
58	5.00	7.09E-05	0.	0.	1.43E-06	5.70E-05	0.	1.89E-07	0.	0.	1.30E-04
59	4.90	5.98E-05	0.	0.	1.16E-06	7.15E-05	0.	1.97E-07	0.	0.	6.81E-05
60	4.80	5.32E-05	0.	0.	1.31E-06	1.61E-05	0.	2.00E-07	0.	0.	7.09E-05
61	4.70	3.67E-05	0.	0.	8.36E-07	1.82E-06	0.	2.05E-07	0.	0.	4.14E-05
62	4.60	3.04E-05	0.	0.	6.11E-07	4.33E-06	0.	2.10E-07	0.	0.	3.52E-05
63	4.50	1.87E-05	0.	1.17E-20	3.45E-07	3.93E-07	0.	2.16E-07	0.	0.	1.97E-05
64	4.40	1.14E-05	0.	3.13E-20	2.75E-07	9.76E-07	0.	2.21E-07	0.	0.	1.10E-05
65	4.30	6.74E-06	0.	4.41E-20	1.70E-07	1.70E-07	0.	2.37E-07	0.	0.	7.29E-06
66	4.20	4.00E-06	0.	2.47E-20	9.68E-08	1.78E-07	0.	2.32E-07	0.	0.	4.50E-06
67	4.10	2.69E-06	0.	2.34E-20	5.20E-08	6.55E-08	0.	2.39E-07	0.	0.	3.04E-06
68	4.00	1.43E-06	0.	2.53E-20	3.46E-08	1.40E-08	0.	2.47E-07	0.	0.	1.73E-06
69	3.90	6.54E-07	0.	3.41E-20	1.53E-08	1.57E-08	0.	2.55E-07	0.	0.	9.42E-07
70	3.80	5.72E-07	0.	3.58E-20	1.41E-08	0.	0.	2.46E-07	0.	0.	6.52E-07
71	3.70	2.25E-07	0.	5.76E-20	4.48E-09	0.	0.	2.77E-07	0.	0.	5.11E-07
72	3.60	1.34E-07	0.	1.02E-20	4.99E-09	0.	0.	2.69E-07	0.	0.	4.27E-07
73	3.50	7.99E-08	0.	1.46E-20	1.707-09	0.	0.	3.02E-07	0.	0.	3.63E-07
74	3.40	3.68E-08	0.	3.34E-20	1.49E-09	0.	0.	3.17E-07	0.	0.	3.55E-07
75	3.30	2.02E-08	0.	2.53E-20	4.92E-10	0.	0.	3.26E-07	0.	0.	3.47E-07
76	3.20	9.48E-09	0.	8.93E-21	3.93E-10	0.	0.	3.35E-07	0.	0.	3.45E-07
77	3.10	4.95E-09	0.	3.12E-20	1.40E-10	0.	0.	3.38E-07	0.	0.	3.44E-07
78	3.00	2.45E-09	0.	1.63E-21	6.95E-11	0.	0.	3.43E-07	0.	0.	3.43E-07
79	2.90	1.04E-09	0.	3.22E-21	2.50E-11	0.	0.	3.22E-07	0.	0.	3.23E-07
80	2.80	6.72E-10	0.	2.53E-22	6.09E-12	0.	0.	3.07E-07	0.	0.	3.08E-07
81	2.70	1.68E-10	0.	2.98E-22	4.09E-13	0.	0.	2.90E-07	0.	0.	2.98E-07
82	2.60	2.06E-11	0.	3.63E-23	5.65E-14	0.	0.	2.72E-07	0.	0.	2.72E-07
83	2.50	7.45E-12	0.	1.74E-23	4.73E-15	0.	0.	2.46E-07	0.	0.	2.49E-07
84	2.40	0.	2.27E-20	0.	2.19E-16	0.	0.	2.28E-07	0.	0.	2.28E-07
85	2.30	0.	3.12E-20	0.	0.	0.	0.	1.99E-07	0.	0.	1.99E-07

TEMPERATURE (DEGREES K) 2000. DENSITY (GM/CC) 1.293E-06 (10.0E-04 NORMAL)

PHOTON ENERGY E.V.	O2 S-R BANDS	O2 S-R CONT.	M2 9-M NO. 1	NO BETA	NO SAMMA	NO 2	0- PHOTO-DET	FREE-FREE (IONS)	N P.E.	O P.E.	TOTAL AIR
1 10.70 0.	0.	0.	4.06E-07	0.	0.	0.	0.	0.	0.	0.	4.06E-07
2 10.60 0.	0.	0.	2.13E-07	0.	0.	0.	0.	0.	0.	0.	2.13E-07
3 10.50 0.	0.	0.	1.33E-07	0.	0.	0.	0.	0.	0.	0.	1.33E-07
4 10.40 0.	0.	0.	8.60E-08	0.	0.	0.	0.	0.	0.	0.	8.60E-08
5 10.30 0.	0.	0.	4.08E-08	0.	0.	0.	0.	0.	0.	0.	4.08E-08
6 10.20 0.	0.	0.	2.78E-08	0.	0.	0.	0.	0.	0.	0.	2.78E-08
7 10.10 0.	0.	0.	1.88E-08	0.	0.	0.	0.	0.	0.	0.	1.88E-08
8 10.00 0.	0.	0.	6.99E-09	0.	0.	0.	0.	0.	0.	0.	6.99E-09
9 9.90 0.	0.	0.	6.29E-09	0.	0.	0.	0.	0.	0.	0.	6.29E-09
10 9.80 0.	0.	0.	3.44E-09	0.	0.	0.	0.	0.	0.	0.	3.44E-09
11 9.70 0.	0.	0.	1.31E-09	0.	0.	0.	0.	0.	0.	0.	1.31E-09
12 9.60 0.	0.	0.	1.44E-09	0.	0.	0.	0.	0.	0.	0.	1.44E-09
13 9.50 0.	3.41E-03	0.	4.84E-10	0.	0.	0.	0.	0.	0.	0.	3.41E-03
14 9.40 0.	1.28E-02	3.14E-10	0.	0.	0.	0.	0.	0.	0.	0.	1.28E-02
15 9.30 0.	2.14E-02	2.49E-10	0.	0.	0.	0.	0.	0.	0.	0.	2.14E-02
16 9.20 0.	3.10E-02	6.09E-11	0.	0.	0.	0.	0.	0.	0.	0.	3.10E-02
17 9.10 0.	4.10E-02	9.15E-11	0.	0.	0.	0.	0.	0.	0.	0.	4.10E-02
18 9.00 0.	5.11E-02	2.89E-11	0.	0.	0.	0.	0.	0.	0.	0.	5.11E-02
19 8.90 0.	6.12E-02	1.92E-11	0.	0.	0.	0.	0.	0.	0.	0.	6.12E-02
20 8.80 0.	6.43E-02	1.25E-11	0.	0.	0.	0.	0.	0.	0.	0.	6.43E-02
21 8.70 0.	6.14E-02	4.15E-12	0.	0.	0.	0.	0.	0.	0.	0.	6.14E-02
22 8.60 0.	5.93E-02	4.78E-12	0.	0.	0.	0.	0.	0.	0.	0.	5.93E-02
23 8.50 0.	5.65E-02	1.37E-12	0.	0.	0.	0.	0.	0.	0.	0.	5.65E-02
24 8.40 0.	5.31E-02	1.34E-13	0.	0.	0.	0.	0.	0.	0.	0.	5.31E-02
25 8.30 0.	4.97E-02	4.43E-13	0.	0.	0.	0.	0.	0.	0.	0.	4.97E-02
26 8.20 0.	4.58E-02	1.48E-13	0.	0.	0.	0.	0.	0.	0.	0.	4.58E-02
27 8.10 0.	4.19E-02	1.42E-13	0.	0.	0.	0.	0.	0.	0.	0.	4.19E-02
28 8.00 0.	3.83E-02	9.81E-14	0.	0.	0.	0.	0.	0.	0.	0.	3.83E-02
29 7.90 0.	3.45E-02	4.26E-14	0.	0.	0.	0.	0.	0.	0.	0.	3.45E-02
30 7.80 0.	3.04E-02	3.03E-14	0.	0.	0.	0.	0.	0.	0.	0.	3.04E-02
31 7.70 0.	2.65E-02	1.42E-14	0.	0.	0.	0.	0.	0.	0.	0.	2.65E-02
32 7.60 0.	2.33E-02	7.94E-15	0.	0.	4.89E-11	0.	0.	0.	0.	0.	2.33E-02
33 7.50 0.	1.97E-02	4.08E-15	0.	0.	1.87E-08	0.	0.	0.	0.	0.	1.97E-02
34 7.40 0.	1.67E-02	2.18E-15	0.	0.	7.83E-08	0.	0.	0.	0.	0.	1.67E-02
35 7.30 0.	1.40E-02	1.18E-15	0.	0.	4.37E-08	0.	0.	0.	0.	0.	1.40E-02
36 7.20 0.	1.17E-02	5.53E-16	0.	0.	1.66E-06	0.	0.	0.	0.	0.	1.17E-02
37 7.10 0.	9.44E-03	2.98E-16	0.	0.	1.22E-07	0.	0.	0.	0.	0.	9.44E-03
38 7.00 1.02E-04	0.	1.49E-16	0.	0.	3.86E-06	0.	0.	0.	0.	0.	1.02E-04
39 6.90 2.59E-04	0.	7.75E-17	0.	0.	7.77E-06	0.	0.	0.	0.	0.	2.59E-04
40 6.80 1.61E-04	0.	4.06E-17	0.	0.	1.41E-06	0.	0.	0.	0.	0.	1.61E-04
41 6.70 8.20E-05	0.	1.98E-17	0.	0.	2.08E-05	0.	0.	0.	0.	0.	8.20E-05
42 6.60 3.14E-05	0.	9.64E-18	0.	0.	1.74E-05	0.	0.	0.	0.	0.	3.14E-05
43 6.50 1.51E-05	0.	3.72E-18	0.	0.	4.36E-06	0.	0.	0.	0.	0.	1.51E-05
44 6.40 2.76E-05	0.	9.53E-19	0.	0.	5.56E-05	0.	0.	0.	0.	0.	2.76E-05
45 6.30 4.37E-05	0.	1.54E-19	0.	0.	4.31E-06	0.	0.	0.	0.	0.	4.37E-05
46 6.20 7.57E-05	0.	2.06E-20	0.	0.	6.43E-06	0.	0.	0.	0.	0.	7.57E-05
47 6.10 1.85E-04	0.	2.65E-21	0.	0.	9.98E-06	0.	0.	0.	0.	0.	1.85E-04
48 6.00 2.91E-04	0.	2.88E-22	0.	0.	2.52E-06	0.	0.	0.	0.	0.	2.91E-04
49 5.90 2.70E-04	0.	1.60E-23	0.	0.	3.56E-06	0.	0.	0.	0.	0.	2.70E-04
50 5.80 2.32E-04	0.	2.98E-25	0.	0.	3.29E-06	0.	0.	0.	0.	0.	2.32E-04
51 5.70 1.34E-04	0.	0.	0.	0.	2.09E-06	0.	0.	0.	0.	0.	1.34E-04

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)				2000.				DENSITY (GM/CC) 1.293E-06 (10.0E-04 NORMAL)							
PHOTON 02 S-R ENERGY BANDS		N2 1ST POS.	N2 2ND POS.	187 NEG.	N2 BETA	N2 GAMMA	N2 VIB-ROT	NO 2	Q- PHOTO-DET (IONS)	N P.E.	0 P.E.	TOTAL AIR			
52	5.50	1.29E-04	0.	0.	5.34E-07	1.51E-05	0.	0.	0.	0.	0.	1.45E-34			
53	5.50	6.71E-05	0.	0.	1.27E-06	4.71E-05	0.	0.	0.	0.	0.	1.47E-04			
54	5.50	6.53E-05	0.	0.	7.72E-07	1.80E-06	0.	0.	0.	0.	0.	6.79E-05			
55	5.30	4.47E-05	0.	0.	6.06E-07	2.21E-05	0.	0.	0.	0.	0.	6.75E-05			
56	5.20	1.43E-05	0.	0.	4.32E-07	7.96E-06	0.	5.74E-09	0.	0.	0.	2.20E-05			
57	5.10	1.17E-05	0.	0.	2.49E-07	3.30E-06	0.	5.94E-09	0.	0.	0.	1.52E-05			
58	5.00	7.05E-06	0.	0.	1.42E-07	5.49E-06	0.	5.94E-09	0.	0.	0.	1.29E-05			
59	4.90	5.92E-06	0.	0.	1.38E-07	7.12E-07	0.	6.14E-09	0.	0.	0.	6.70E-06			
60	4.80	5.29E-06	0.	0.	1.31E-07	1.41E-06	0.	6.30E-09	0.	0.	0.	7.04E-06			
61	4.70	3.65E-06	0.	0.	8.33E-08	1.42E-07	0.	6.45E-09	0.	0.	0.	4.10E-06			
62	4.60	2.99E-06	0.	0.	6.09E-08	4.32E-07	0.	6.61E-09	0.	0.	0.	3.49E-06			
63	4.50	1.86E-06	0.	1.17E-21	3.44E-08	3.92E-08	0.	6.70E-09	0.	0.	0.	1.94E-06			
64	4.40	1.15E-06	0.	3.13E-20	2.24E-08	9.73E-08	0.	6.94E-09	0.	0.	0.	1.28E-06			
65	4.30	4.71E-07	0.	4.43E-21	1.38E-08	1.70E-08	0.	7.13E-09	0.	0.	0.	7.09E-07			
66	4.20	3.98E-07	0.	2.47E-19	9.66E-09	1.70E-08	0.	7.30E-09	0.	0.	0.	4.32E-07			
67	4.10	2.67E-07	0.	2.53E-21	5.19E-09	6.53E-09	0.	7.50E-09	0.	0.	0.	2.84E-07			
68	4.00	1.42E-07	0.	2.53E-19	3.45E-09	1.40E-09	0.	7.70E-09	0.	0.	0.	1.59E-07			
69	3.90	6.52E-08	0.	3.41E-19	1.52E-09	1.57E-09	0.	8.03E-09	0.	0.	0.	7.43E-08			
70	3.80	3.69E-08	0.	3.58E-20	1.41E-09	0.	0.	8.33E-09	0.	0.	0.	6.64E-08			
71	3.70	2.27E-08	0.	5.75E-19	4.15E-10	0.	0.	8.70E-09	0.	0.	0.	5.18E-08			
72	3.60	1.33E-08	0.	1.03E-20	4.90E-10	0.	0.	9.08E-09	0.	0.	0.	2.29E-08			
73	3.50	7.94E-09	0.	1.46E-19	1.30E-10	0.	0.	9.50E-09	0.	0.	0.	1.70E-08			
74	3.40	3.63E-09	0.	3.36E-21	1.48E-10	0.	0.	9.95E-09	0.	0.	0.	1.37E-08			
75	3.30	2.01E-09	0.	2.33E-20	4.08E-11	0.	0.	1.03E-08	0.	0.	0.	1.23E-08			
76	3.20	9.43E-10	0.	8.93E-22	3.92E-11	0.	0.	1.05E-08	0.	0.	0.	1.15E-08			
77	3.10	4.92E-10	0.	3.13E-21	1.59E-11	0.	0.	1.08E-08	0.	0.	0.	1.12E-08			
78	3.00	2.43E-10	0.	1.83E-22	8.82E-12	0.	0.	1.09E-08	0.	0.	0.	1.06E-08			
79	2.90	1.06E-10	0.	5.22E-22	2.59E-12	0.	0.	1.01E-08	0.	0.	0.	1.02E-08			
80	2.80	6.60E-11	0.	2.55E-23	6.07E-13	0.	0.	9.45E-09	0.	0.	0.	9.72E-09			
81	2.70	1.67E-11	0.	2.98E-23	6.07E-14	0.	0.	9.13E-09	0.	0.	0.	9.14E-09			
82	2.60	2.04E-12	0.	3.03E-24	5.53E-15	0.	0.	8.56E-09	0.	0.	0.	8.56E-09			
83	2.50	7.39E-14	0.	1.74E-24	4.72E-16	0.	0.	7.33E-09	0.	0.	0.	7.33E-09			
84	2.40	0.	0.	2.27E-21	2.19E-17	0.	0.	7.10E-09	0.	0.	0.	7.10E-09			
85	2.30	0.	0.	3.12E-19	0.	0.	0.	6.20E-09	0.	0.	0.	6.20E-09			
86	2.20	0.	0.	3.41E-19	0.	0.	0.	5.39E-09	0.	0.	0.	5.39E-09			
87	2.10	0.	0.	3.14E-18	0.	0.	0.	4.49E-09	0.	0.	0.	4.49E-09			
88	2.00	0.	0.	3.95E-18	0.	0.	0.	3.40E-09	0.	0.	0.	3.40E-09			
89	1.90	0.	0.	3.46E-17	0.	0.	0.	2.58E-09	0.	0.	0.	2.58E-09			
90	1.80	0.	0.	1.46E-16	0.	0.	0.	1.72E-09	0.	0.	0.	1.72E-09			
91	1.70	0.	0.	4.14E-17	0.	0.	0.	1.10E-09	0.	0.	0.	1.10E-09			
92	1.60	0.	0.	9.31E-17	0.	0.	0.	6.79E-10	0.	0.	0.	6.79E-10			
93	1.50	0.	0.	3.47E-17	0.	0.	0.	2.79E-10	0.	0.	0.	2.79E-10			
94	1.40	0.	0.	1.86E-16	0.	0.	0.	0.	0.	0.	0.	1.06E-16			
95	1.30	0.	0.	2.43E-17	0.	0.	0.	0.	0.	0.	0.	2.43E-17			
96	1.20	0.	0.	1.55E-16	0.	0.	0.	0.	0.	0.	0.	1.55E-16			
97	1.10	0.	0.	1.62E-16	0.	0.	0.	8.57E-11	0.	0.	0.	8.57E-11			
98	1.00	0.	0.	5.11E-17	0.	0.	0.	1.86E-11	0.	0.	0.	1.86E-11			
99	0.90	0.	0.	1.15E-17	0.	0.	0.	4.66E-10	0.	0.	0.	4.66E-10			
100	0.80	0.	0.	5.32E-18	0.	0.	0.	1.98E-10	0.	0.	0.	1.98E-10			
101	0.70	0.	0.	1.04E-18	0.	0.	0.	3.90E-09	0.	0.	0.	3.90E-09			
102	0.60	0.	0.	1.19E-23	0.	0.	0.	1.87E-09	0.	0.	0.	1.87E-09			

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		2000.		DENSITY (GM/CC) 1.293E-07 (10.0E-05 NORMAL)		NO		O-		FREE-FREE		N		TOTAL AIR	
PHOTON 02 S-R		02 S-R		N2 B-W		NO		BETA		NO		2		PHOTO-DET	
ENERGY BANDS		CONT.		NO.		BETA		NO		BETA		NO		P.E.	
E.V.															
1	10.70	0.	0.	4.00E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.00E-08
2	10.60	0.	0.	2.13E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.13E-08
3	10.50	0.	0.	1.33E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.33E-08
4	10.40	0.	0.	0.61E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.61E-09
5	10.30	0.	0.	4.00E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.00E-09
6	10.20	0.	0.	2.78E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.78E-09
7	10.10	0.	0.	1.00E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-09
8	10.00	0.	0.	7.00E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.00E-10
9	9.90	0.	0.	6.20E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.20E-10
10	9.80	0.	0.	3.44E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.44E-10
11	9.70	0.	0.	1.31E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.31E-10
12	9.60	0.	0.	1.44E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.44E-10
13	9.50	0.	0.	3.37E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.37E-04
14	9.40	0.	0.	1.25E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.25E-03
15	9.30	0.	0.	2.16E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.16E-03
16	9.20	0.	0.	3.07E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.07E-03
17	9.10	0.	0.	4.04E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.04E-03
18	9.00	0.	0.	5.00E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.00E-03
19	8.90	0.	0.	6.00E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.00E-03
20	8.80	0.	0.	6.34E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.34E-03
21	8.70	0.	0.	6.12E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.12E-03
22	8.60	0.	0.	5.87E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.87E-03
23	8.50	0.	0.	5.60E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.60E-03
24	8.40	0.	0.	5.24E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.24E-03
25	8.30	0.	0.	4.89E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.89E-03
26	8.20	0.	0.	4.51E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.51E-03
27	8.10	0.	0.	4.15E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.15E-03
28	8.00	0.	0.	3.79E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.79E-03
29	7.90	0.	0.	3.41E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.41E-03
30	7.80	0.	0.	3.03E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.03E-03
31	7.70	0.	0.	2.66E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.66E-03
32	7.60	0.	0.	2.31E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.31E-03
33	7.50	0.	0.	1.95E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.95E-03
34	7.40	0.	0.	1.66E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.66E-03
35	7.30	0.	0.	1.39E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.39E-03
36	7.20	0.	0.	1.16E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.16E-03
37	7.10	0.	0.	9.35E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.35E-04
38	7.00	1.78E-05	0.	1.40E-17	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.40E-17
39	6.90	2.54E-05	0.	7.77E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.77E-10
40	6.80	1.50E-05	0.	4.00E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.00E-10
41	6.70	8.06E-06	0.	1.98E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.98E-10
42	6.60	3.74E-06	0.	9.53E-19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.53E-19
43	6.50	1.48E-06	0.	3.02E-19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.02E-19
44	6.40	2.71E-06	0.	9.53E-20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.53E-20
45	6.30	4.29E-06	0.	1.46E-20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.46E-20
46	6.20	7.82E-06	0.	2.00E-21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.00E-21
47	6.10	1.81E-05	0.	2.66E-22	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.66E-22
48	6.00	2.74E-05	0.	2.88E-23	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.88E-23
49	5.90	2.65E-05	0.	1.61E-24	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.61E-24
50	5.80	2.28E-05	0.	2.08E-26	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.08E-26
51	5.70	1.32E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)				2800.				DENSITY (GM/CC) 1.293E-07 (10.0E-05 NORMAL)				TOTAL AIR			
PHOTON Q2 5-R				N2				NO				O			
ENERGY BANDS				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2				NO				P.F.			
				1ST POS. 2ND POS. 1ST NEG.				GAMMA				P.F.			
				N2											

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)										2600.		DENSITY (GM/CC)		1.293E-03		(110.0E-06 NORMAL)		
PHOTON 02 S-R		02 S-R	NO. 1		NO. 2		NO. 3		NO. 4		NO. 5		NO. 6		NO. 7		TOTAL AIR	
ENERGY BANDS		CONT.	E.V.		E.V.		E.V.		E.V.		E.V.		E.V.		E.V.		E.V.	
1	10.70 0.	0.	4.04E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2	10.60 0.	0.	2.13E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3	10.50 0.	0.	1.33E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4	10.40 0.	0.	8.61E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5	10.30 0.	0.	4.06E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6	10.20 0.	0.	2.70E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7	10.10 0.	0.	1.60E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8	10.00 0.	0.	6.99E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9	9.90 0.	0.	6.20E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10	9.80 0.	0.	3.44E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	9.70 0.	0.	1.31E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12	9.60 0.	0.	1.44E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13	9.50 0.	3.17E-05	4.05E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14	9.40 0.	1.17E-04	3.14E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15	9.30 0.	2.03E-04	2.40E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16	9.20 0.	2.89E-04	6.09E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17	9.10 0.	3.61E-04	9.15E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18	9.00 0.	4.75E-04	2.90E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19	8.90 0.	5.69E-04	1.92E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20	8.80 0.	5.99E-04	1.25E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	8.70 0.	5.74E-04	4.15E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22	8.60 0.	5.52E-04	4.70E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23	8.50 0.	5.26E-04	1.37E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24	8.40 0.	4.94E-04	1.34E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25	8.30 0.	4.54E-04	4.43E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26	8.20 0.	4.24E-04	3.40E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27	8.10 0.	3.90E-04	1.42E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28	8.00 0.	3.54E-04	9.82E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29	7.90 0.	3.21E-04	4.26E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30	7.80 0.	2.85E-04	3.83E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	7.70 0.	2.50E-04	1.42E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32	7.60 0.	2.17E-04	7.94E-17	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33	7.50 0.	1.83E-04	4.80E-17	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34	7.40 0.	1.54E-04	2.10E-17	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35	7.30 0.	1.30E-04	1.10E-17	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36	7.20 0.	1.09E-04	5.53E-18	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37	7.10 0.	8.74E-05	2.90E-18	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38	7.00 1.60E-06	0.	1.49E-18	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39	6.90 2.40E-06	0.	7.77E-19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40	6.80 1.49E-06	0.	4.00E-19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	6.70 7.60E-07	0.	1.94E-19	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42	6.60 3.53E-07	0.	9.62E-20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43	6.50 1.40E-07	0.	3.82E-20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44	6.40 2.55E-07	0.	9.53E-21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45	6.30 4.05E-07	0.	1.54E-21	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46	6.20 7.38E-07	0.	2.00E-22	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47	6.10 1.71E-06	0.	2.66E-23	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48	6.00 2.60E-06	0.	2.88E-24	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49	5.90 2.50E-06	0.	1.60E-25	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50	5.80 2.15E-06	0.	2.90E-27	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	5.70 1.24E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 5-R		TEMPERATURE (DEGREES K)		2000.		DENSITY (GM/CC)		1.293E-08		(10.0E-06 NORMAL)		TOTAL AIR	
ENERGY BANDS		1ST POS.		2ND POS.		1ST NEG.		2ND NEG.		2		P.E.	
		M2		M2		BETA		GAMMA		NO		P.E.	
										VIB-ROY		P.E.	
										NO		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	
										2		P.E.	

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 2000. DENSITY (GM/CC) 1.293E-09 (10.0E-07 NORMAL)

PHOTON ENERGY E.V.	O2 S-R BANDS	O2 S-R CONT.	M2 0-H NO. 1	NO BETA	NO GAMMA	NO 2	Q- PHOTO-DET (100S)	FREE-FREE N P.E.	0 P.E.	TOTAL AIR
1	10.70 0.	0.	4.04E-10	0.	0.	0.	0.	0.	0.	4.04E-10
2	10.60 0.	0.	2.13E-10	0.	0.	0.	0.	0.	0.	2.13E-10
3	10.50 0.	0.	1.32E-10	0.	0.	0.	0.	0.	0.	1.32E-10
4	10.40 0.	0.	8.41E-11	0.	0.	0.	0.	0.	0.	8.41E-11
5	10.30 0.	0.	4.08E-11	0.	0.	0.	0.	0.	0.	4.08E-11
6	10.20 0.	0.	2.78E-11	0.	0.	0.	0.	0.	0.	2.78E-11
7	10.10 0.	0.	1.88E-11	0.	0.	0.	0.	0.	0.	1.88E-11
8	10.00 0.	0.	7.00E-12	0.	0.	0.	0.	0.	0.	7.00E-12
9	9.90 0.	0.	6.21E-12	0.	0.	0.	0.	0.	0.	6.21E-12
10	9.80 0.	0.	3.44E-12	0.	0.	0.	0.	0.	0.	3.44E-12
11	9.70 0.	0.	1.31E-12	0.	0.	0.	0.	0.	0.	1.31E-12
12	9.60 0.	0.	1.44E-12	0.	0.	0.	0.	0.	0.	1.44E-12
13	9.50 0.	2.84E-04	4.09E-13	0.	0.	0.	0.	0.	0.	2.84E-04
14	9.40 0.	9.78E-04	3.18E-13	0.	0.	0.	0.	0.	0.	9.78E-04
15	9.30 0.	1.09E-03	2.49E-13	0.	0.	0.	0.	0.	0.	1.09E-03
16	9.20 0.	2.41E-03	6.89E-14	0.	0.	0.	0.	0.	0.	2.41E-03
17	9.10 0.	3.14E-03	9.15E-14	0.	0.	0.	0.	0.	0.	3.14E-03
18	9.00 0.	3.94E-03	2.90E-14	0.	0.	0.	0.	0.	0.	3.94E-03
19	8.90 0.	4.74E-03	1.92E-14	0.	0.	0.	0.	0.	0.	4.74E-03
20	8.80 0.	4.98E-03	1.25E-14	0.	0.	0.	0.	0.	0.	4.98E-03
21	8.70 0.	4.79E-03	4.19E-15	0.	0.	0.	0.	0.	0.	4.79E-03
22	8.60 0.	4.08E-03	4.71E-15	0.	0.	0.	0.	0.	0.	4.08E-03
23	8.50 0.	4.38E-03	1.37E-15	0.	0.	0.	0.	0.	0.	4.38E-03
24	8.40 0.	4.12E-03	1.34E-15	0.	0.	0.	0.	0.	0.	4.12E-03
25	8.30 0.	3.82E-03	4.42E-16	0.	0.	0.	0.	0.	0.	3.82E-03
26	8.20 0.	3.53E-03	3.48E-16	0.	0.	0.	0.	0.	0.	3.53E-03
27	8.10 0.	3.25E-03	1.42E-16	0.	0.	0.	0.	0.	0.	3.25E-03
28	8.00 0.	2.97E-03	9.82E-17	0.	0.	0.	0.	0.	0.	2.97E-03
29	7.90 0.	2.67E-03	4.27E-17	0.	0.	0.	0.	0.	0.	2.67E-03
30	7.80 0.	2.34E-03	3.83E-17	0.	0.	0.	0.	0.	0.	2.34E-03
31	7.70 0.	2.09E-03	1.42E-17	0.	0.	0.	0.	0.	0.	2.09E-03
32	7.60 0.	1.81E-03	7.94E-18	0.	0.	0.	0.	0.	0.	1.81E-03
33	7.50 0.	1.53E-03	4.89E-18	0.	0.	0.	0.	0.	0.	1.53E-03
34	7.40 0.	1.30E-03	2.11E-18	0.	0.	0.	0.	0.	0.	1.30E-03
35	7.30 0.	1.09E-03	1.08E-18	0.	0.	0.	0.	0.	0.	1.09E-03
36	7.20 0.	9.08E-04	5.93E-19	0.	0.	0.	0.	0.	0.	9.08E-04
37	7.10 0.	7.32E-04	2.94E-19	0.	0.	0.	0.	0.	0.	7.32E-04
38	7.00 0.	6.00E-04	1.49E-19	0.	0.	0.	0.	0.	0.	6.00E-04
39	6.90 0.	5.00E-04	7.78E-20	0.	0.	0.	0.	0.	0.	5.00E-04
40	6.80 0.	4.24E-04	4.08E-20	0.	0.	0.	0.	0.	0.	4.24E-04
41	6.70 0.	3.64E-04	1.94E-20	0.	0.	0.	0.	0.	0.	3.64E-04
42	6.60 0.	3.04E-04	9.63E-21	0.	0.	0.	0.	0.	0.	3.04E-04
43	6.50 0.	2.44E-04	5.03E-21	0.	0.	0.	0.	0.	0.	2.44E-04
44	6.40 0.	2.13E-04	9.53E-22	0.	0.	0.	0.	0.	0.	2.13E-04
45	6.30 0.	1.81E-04	1.54E-22	0.	0.	0.	0.	0.	0.	1.81E-04
46	6.20 0.	1.53E-04	2.08E-23	0.	0.	0.	0.	0.	0.	1.53E-04
47	6.10 0.	1.31E-04	2.68E-24	0.	0.	0.	0.	0.	0.	1.31E-04
48	6.00 0.	1.09E-04	2.08E-25	0.	0.	0.	0.	0.	0.	1.09E-04
49	5.90 0.	9.08E-05	1.81E-26	0.	0.	0.	0.	0.	0.	9.08E-05
50	5.80 0.	7.32E-05	1.49E-26	0.	0.	0.	0.	0.	0.	7.32E-05
51	5.70 0.	6.00E-05	1.14E-26	0.	0.	0.	0.	0.	0.	6.00E-05

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON Q2 S-R ENERGY BANDS		TEMPERATURE (DEGREES K)		2000.		DENSITY (GM/CC)		1.293E-09 (18.0E-07 NORMAL)		O		TOTAL AIR	
1ST POS.	2ND POS.	1ST POS.	2ND POS.	M2*	M2*	NO	NO	NO	NO	PHOTO-DET (IONS)	PHOTO-DET (IONS)	N	P.E.
5.60	9.98E-08	0.	0.	0.	0.	4.71E-10	1.32E-08	0.	0.	0.	0.	0.	1.14E-07
5.50	7.65E-08	0.	0.	0.	0.	1.12E-09	5.90E-08	0.	0.	0.	0.	0.	1.37E-07
5.40	5.04E-08	0.	0.	0.	0.	6.79E-10	1.65E-09	0.	0.	0.	0.	0.	5.28E-08
5.30	3.45E-08	0.	0.	0.	0.	5.33E-10	1.95E-08	0.	0.	0.	0.	0.	5.45E-08
5.20	1.11E-08	0.	0.	0.	0.	3.97E-10	7.00E-09	0.	0.	0.	0.	0.	1.85E-08
5.10	9.01E-09	0.	0.	0.	0.	2.37E-10	2.90E-09	0.	0.	0.	0.	0.	1.22E-08
5.00	5.46E-09	0.	0.	0.	0.	1.25E-10	5.07E-09	0.	0.	0.	0.	0.	1.06E-08
4.90	4.08E-09	0.	0.	0.	0.	1.04E-10	6.24E-10	0.	0.	0.	0.	0.	5.33E-09
4.80	2.97E-09	0.	0.	0.	0.	7.13E-11	1.42E-10	0.	0.	0.	0.	0.	5.6E-09
4.70	2.31E-09	0.	0.	0.	0.	5.35E-11	3.80E-10	0.	0.	0.	0.	0.	3.19E-09
4.60	1.44E-09	0.	0.	0.	0.	3.02E-11	3.45E-11	0.	0.	0.	0.	0.	2.74E-09
4.50	8.91E-10	0.	0.	0.	0.	1.99E-11	6.56E-11	0.	0.	0.	0.	0.	1.58E-09
4.40	5.19E-10	0.	0.	0.	0.	1.22E-11	1.49E-11	0.	0.	0.	0.	0.	9.96E-10
4.30	3.07E-10	0.	0.	0.	0.	7.96E-12	1.56E-11	0.	0.	0.	0.	0.	5.46E-10
4.20	2.04E-10	0.	0.	0.	0.	4.56E-12	5.74E-12	0.	0.	0.	0.	0.	3.31E-10
4.10	1.10E-10	0.	0.	0.	0.	3.03E-12	1.23E-12	0.	0.	0.	0.	0.	2.17E-10
4.00	5.04E-11	0.	0.	0.	0.	1.34E-12	1.35E-12	0.	0.	0.	0.	0.	1.15E-10
3.90	3.04E-11	0.	0.	0.	0.	1.24E-12	8.0E-13	0.	0.	0.	0.	0.	5.33E-11
3.80	4.39E-11	0.	0.	0.	0.	3.84E-13	8.0E-13	0.	0.	0.	0.	0.	4.54E-11
3.70	1.75E-11	0.	0.	0.	0.	4.38E-13	8.0E-13	0.	0.	0.	0.	0.	1.61E-11
3.60	1.03E-11	0.	0.	0.	0.	1.45E-13	8.0E-13	0.	0.	0.	0.	0.	1.09E-11
3.50	4.35E-12	0.	0.	0.	0.	1.31E-13	8.0E-13	0.	0.	0.	0.	0.	6.48E-12
3.40	2.80E-12	0.	0.	0.	0.	3.38E-14	8.0E-13	0.	0.	0.	0.	0.	3.18E-12
3.30	1.55E-12	0.	0.	0.	0.	3.36E-14	8.0E-13	0.	0.	0.	0.	0.	1.04E-12
3.20	7.28E-13	0.	0.	0.	0.	1.22E-14	8.0E-13	0.	0.	0.	0.	0.	1.02E-12
3.10	3.80E-13	0.	0.	0.	0.	7.76E-15	8.0E-13	0.	0.	0.	0.	0.	4.53E-13
3.00	1.88E-13	0.	0.	0.	0.	2.01E-15	8.0E-13	0.	0.	0.	0.	0.	4.50E-13
2.90	8.18E-14	0.	0.	0.	0.	5.34E-16	8.0E-13	0.	0.	0.	0.	0.	3.31E-13
2.80	5.10E-14	0.	0.	0.	0.	5.34E-16	8.0E-13	0.	0.	0.	0.	0.	2.68E-13
2.70	1.29E-14	0.	0.	0.	0.	4.95E-16	8.0E-13	0.	0.	0.	0.	0.	2.36E-13
2.60	1.50E-15	0.	0.	0.	0.	4.15E-16	8.0E-13	0.	0.	0.	0.	0.	2.11E-13
2.50	5.71E-17	0.	0.	0.	0.	1.92E-20	8.0E-13	0.	0.	0.	0.	0.	1.91E-13
2.40	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	1.75E-13
2.30	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	1.53E-13
2.20	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	1.32E-13
2.10	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	1.10E-13
2.00	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	8.32E-14
1.90	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	6.30E-14
1.80	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	4.21E-14
1.70	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	2.69E-14
1.60	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	1.64E-14
1.50	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	6.82E-15
1.40	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	1.80E-15
1.30	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	2.40E-15
1.20	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	1.59E-15
1.10	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	7.54E-16
1.00	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	1.64E-16
0.90	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	6.03E-17
0.80	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	1.74E-17
0.70	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	3.43E-18
0.60	0.	0.	0.	0.	0.	0.	8.0E-13	0.	0.	0.	0.	0.	9.44E-19

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 3000. DENSITY (GM/CC) 1.293E-02 (1.0E-01 NORMAL)									
PHOTON ENERGY E.V.	O2 S-R SANDS	O2 S-R CONT.	N2 M-H NO. 1	NO BETA	AD GAMMA	NO 2	O- PHOTO-DET (100G)	FREE-FREE M	TOTAL AIR
								P.E.	P.E.
1 10.70 0.	0.	2.67E-01	0.	0.	0.	0.	1.77E-00 0.	0.	2.67E-01
2 10.60 0.	0.	1.69E-01	0.	0.	0.	0.	1.76E-00 0.	0.	1.69E-01
3 10.50 0.	0.	1.32E-01	0.	0.	0.	0.	1.76E-00 0.	0.	1.32E-01
4 10.40 0.	0.	9.57E-02	0.	0.	0.	0.	1.76E-00 0.	0.	9.57E-02
5 10.30 0.	0.	5.71E-02	0.	0.	0.	0.	1.76E-00 0.	0.	5.71E-02
6 10.20 0.	0.	4.04E-02	0.	0.	0.	0.	1.76E-00 0.	0.	4.04E-02
7 10.10 0.	0.	3.18E-02	0.	0.	0.	0.	1.76E-00 0.	0.	3.18E-02
8 10.00 0.	0.	1.82E-02	0.	0.	0.	0.	1.76E-00 0.	0.	1.82E-02
9 9.90 0.	0.	1.71E-02	0.	0.	0.	0.	1.76E-00 0.	0.	1.71E-02
10 9.80 0.	0.	1.13E-02	0.	0.	0.	0.	1.76E-00 0.	0.	1.13E-02
11 9.70 0.	0.	5.99E-03	0.	0.	0.	0.	1.76E-00 0.	0.	5.99E-03
12 9.60 0.	0.	6.47E-03	0.	0.	0.	0.	1.76E-00 0.	0.	6.47E-03
13 9.50 0.	2.77E-01	3.17E-03	0.	0.	0.	0.	1.61E-00 0.	0.	2.77E-01
14 9.40 0.	1.53E-02	2.27E-03	0.	0.	0.	0.	1.61E-00 0.	0.	1.53E-02
15 9.30 0.	1.78E-02	2.66E-03	0.	0.	0.	0.	1.62E-00 0.	0.	1.78E-02
16 9.20 0.	2.52E-02	6.20E-04	0.	0.	0.	0.	1.62E-00 0.	0.	2.52E-02
17 9.10 0.	3.24E-02	9.94E-04	0.	0.	0.	0.	1.63E-00 0.	0.	3.24E-02
18 9.00 0.	3.95E-02	3.04E-04	0.	0.	0.	0.	1.64E-00 0.	0.	3.95E-02
19 8.90 0.	4.65E-02	3.50E-04	0.	0.	0.	0.	1.65E-00 0.	0.	4.65E-02
20 8.80 0.	4.94E-02	2.80E-04	0.	0.	0.	0.	1.65E-00 0.	0.	4.94E-02
21 8.70 0.	4.51E-02	1.34E-04	0.	0.	0.	0.	1.64E-00 0.	0.	4.51E-02
22 8.60 0.	4.39E-02	1.42E-04	0.	0.	0.	0.	1.67E-00 0.	0.	4.39E-02
23 8.50 0.	4.16E-02	6.50E-05	0.	0.	0.	0.	1.67E-00 0.	0.	4.16E-02
24 8.40 0.	3.95E-02	6.10E-05	0.	0.	0.	0.	1.68E-00 0.	0.	3.95E-02
25 8.30 0.	3.72E-02	2.97E-05	0.	0.	0.	0.	1.69E-00 0.	0.	3.72E-02
26 8.20 0.	3.49E-02	2.56E-05	0.	0.	0.	0.	1.69E-00 0.	0.	3.49E-02
27 8.10 0.	3.24E-02	1.37E-05	0.	0.	0.	0.	1.91E-00 5.37E-16	0.	3.24E-02
28 8.00 0.	3.00E-02	1.11E-05	0.	0.	0.	0.	1.92E-00 5.57E-16	0.	3.00E-02
29 7.90 0.	2.77E-02	6.12E-06	0.	0.	0.	0.	1.93E-00 5.78E-16	0.	2.77E-02
30 7.80 0.	2.58E-02	5.87E-06	0.	0.	0.	0.	1.94E-00 6.01E-16	0.	2.58E-02
31 7.70 0.	2.32E-02	2.94E-06	0.	0.	0.	0.	1.95E-00 6.25E-16	0.	2.32E-02
32 7.60 0.	2.09E-02	2.89E-06	0.	0.	0.	0.	1.96E-00 6.50E-16	0.	2.09E-02
33 7.50 0.	1.85E-02	1.30E-06	0.	0.	0.	0.	1.97E-00 6.76E-16	0.	1.85E-02
34 7.40 0.	1.64E-02	8.37E-07	0.	0.	0.	0.	1.98E-00 7.04E-16	0.	1.64E-02
35 7.30 0.	1.47E-02	5.50E-07	0.	0.	0.	0.	1.99E-00 7.34E-16	0.	1.47E-02
36 7.20 0.	1.26E-02	3.46E-07	0.	0.	0.	0.	2.00E-00 7.65E-16	0.	1.26E-02
37 7.10 0.	1.08E-02	2.36E-07	0.	0.	0.	0.	2.02E-00 7.98E-16	0.	1.08E-02
38 7.00 0.	9.47E-03	1.47E-07	0.	0.	0.	0.	2.04E-00 8.32E-16	0.	9.47E-03
39 6.90 0.	8.40E-03	9.40E-08	0.	0.	0.	0.	2.05E-00 8.69E-16	0.	8.40E-03
40 6.80 0.	6.80E-03	6.10E-08	0.	0.	0.	0.	2.07E-00 9.08E-16	0.	6.80E-03
41 6.70 0.	5.70E-03	3.79E-08	0.	0.	0.	0.	2.09E-00 9.50E-16	0.	5.70E-03
42 6.60 0.	4.70E-03	2.30E-08	0.	0.	0.	0.	2.10E-00 9.93E-16	0.	4.70E-03
43 6.50 0.	3.80E-03	1.15E-08	0.	0.	0.	0.	2.12E-00 1.04E-15	0.	3.80E-03
44 6.40 0.	2.12E-03	0.40E-09	0.	0.	0.	0.	2.14E-00 1.09E-15	0.	2.12E-03
45 6.30 0.	3.84E-04	1.09E-09	0.	0.	0.	0.	2.15E-00 1.14E-15	0.	3.84E-04
46 6.20 0.	6.70E-05	2.67E-10	0.	0.	0.	0.	2.17E-00 1.20E-15	0.	6.70E-05
47 6.10 0.	2.52E-05	6.10E-11	0.	0.	0.	0.	2.19E-00 1.26E-15	0.	2.52E-05
48 6.00 0.	4.70E-06	9.87E-12	0.	0.	0.	0.	2.20E-00 1.32E-15	0.	4.70E-06
49 5.90 0.	5.64E-06	6.37E-13	0.	0.	0.	0.	2.20E-00 1.39E-15	0.	5.64E-06
50 5.80 0.	6.12E-06	1.36E-14	0.	0.	0.	0.	2.20E-00 1.46E-15	0.	6.12E-06
51 5.70 0.	4.70E-06	0.	0.	0.	0.	0.	2.04E-00 1.54E-15	0.	4.70E-06

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-B ENERGY BANDS		M2 1ST POS.	M2 2ND POS.	M2 1ST NEG.	M2 2ND NEG.	NO BETA	LO GAMMA	NO VIB-007	NO 2	0- PHOTO-DET (10AS)	M P.E.	0 P.E.	TOTAL AIR
TEMPERATURE (DEGREES K) 3400. DENSITY (GM/CC) 1.293E-02 (1.0E 01 NORMAL)													
52	5.60 4.90E 00	0.	0.	0.	0.	0.00E-02	1.37E 00	0.	0.	1.00E-06	1.03E-15	0.	6.43E 00
53	5.50 4.24E 00	0.	0.	0.	0.	1.47E-01	2.00E 00	0.	0.	1.00E-06	1.72E-15	0.	5.37E 00
54	5.40 3.43E 00	0.	0.	0.	0.	0.05E-02	3.42E-01	0.	0.	1.01E-06	1.02E-15	0.	3.07E 00
55	5.30 2.60E 00	0.	0.	0.	0.	0.31E-02	1.41E 00	0.	0.	1.03E-06	1.02E-15	0.	4.10E 00
56	5.20 1.51E 00	0.	0.	0.	0.	0.90E-02	4.95E-01	0.	0.	1.04E-06	2.03E-15	0.	1.70E 00
57	5.10 0.80E-01	0.	0.	0.	0.	0.00E-02	4.00E-01	0.	1.47E-02	1.04E-06	2.10E-15	0.	1.56E 00
58	5.00 0.33E-01	0.	0.	0.	0.	0.91E-02	5.35E-01	0.	1.48E-02	1.07E-06	2.20E-15	0.	1.22E 00
59	4.90 0.28E-01	0.	0.	0.	0.	0.37E-02	1.07E-01	0.	1.48E-02	1.09E-06	2.35E-15	0.	7.66E-01
60	4.80 0.21E-01	0.	0.	0.	0.	0.70E-02	2.51E-01	0.	1.49E-02	2.00E-06	2.50E-15	0.	6.23E-01
61	4.70 0.18E-01	0.	0.	0.	0.	0.00E-02	2.20E-01	0.	1.49E-02	2.02E-06	2.74E-15	0.	5.43E-01
62	4.60 0.18E-01	0.	0.	0.	0.	0.35E-02	1.10E-01	0.	1.50E-02	2.04E-06	2.94E-15	0.	5.07E-01
63	4.50 0.14E-01	0.	0.	0.	0.	1.57E-02	2.80E-02	0.	1.51E-02	2.05E-06	3.14E-15	0.	3.76E-01
64	4.40 0.29E-01	0.	4.30E-11	0.	0.	1.20E-02	3.90E-02	0.	1.52E-02	2.07E-06	3.36E-15	0.	3.06E-01
65	4.30 1.44E-01	0.	2.31E-10	0.	0.	0.00E-03	9.00E-03	0.	1.53E-02	2.09E-06	3.60E-15	0.	1.90E-01
66	4.20 1.17E-01	0.	3.06E-09	0.	0.	0.34E-03	1.10E-02	0.	1.54E-02	2.10E-06	3.84E-15	0.	1.52E-01
67	4.10 0.72E-02	0.	1.76E-16	0.	0.	5.01E-03	3.20E-03	0.	1.54E-02	2.11E-06	4.15E-15	0.	1.11E-01
68	4.00 0.50E-02	0.	4.75E-09	0.	0.	2.81E-03	1.41E-03	0.	1.55E-02	2.12E-06	4.47E-15	0.	7.33E-02
69	3.90 0.40E-02	0.	3.77E-09	0.	0.	5.14E-17	2.21E-03	0.	1.56E-02	2.11E-06	4.82E-15	0.	5.29E-02
70	3.80 0.31E-02	0.	1.23E-09	0.	0.	2.94E-15	2.10E-03	0.	1.57E-02	2.10E-06	5.21E-15	0.	5.01E-02
71	3.70 1.74E-02	0.	7.09E-09	0.	0.	1.34E-15	9.01E-04	0.	1.58E-02	2.07E-06	5.63E-15	0.	3.42E-02
72	3.60 1.20E-02	0.	5.10E-10	0.	0.	1.13E-15	1.13E-03	0.	1.59E-02	1.94E-06	6.13E-15	0.	2.91E-02
73	3.50 0.35E-03	0.	2.08E-09	0.	0.	3.21E-14	4.43E-04	0.	1.60E-02	1.77E-06	6.67E-15	0.	2.40E-02
74	3.40 0.02E-03	0.	7.40E-10	0.	0.	4.55E-17	5.01E-04	0.	1.61E-02	1.02E-06	7.20E-15	0.	2.16E-02
75	3.30 0.31E-03	0.	7.21E-10	0.	0.	2.60E-15	2.11E-04	0.	1.61E-02	1.03E-06	7.94E-15	0.	1.95E-02
76	3.20 1.07E-03	0.	9.44E-11	0.	0.	5.00E-14	2.01E-04	0.	1.61E-02	1.03E-06	8.73E-15	0.	1.82E-02
77	3.10 1.20E-03	0.	1.50E-10	0.	0.	9.04E-17	1.11E-04	0.	1.60E-02	1.03E-06	9.61E-15	0.	1.74E-02
78	3.00 0.75E-04	0.	2.03E-11	0.	0.	2.94E-15	7.67E-05	0.	1.59E-02	1.03E-06	1.06E-14	0.	1.74E-02
79	2.90 0.30E-04	0.	2.35E-11	0.	0.	7.07E-15	2.97E-05	0.	1.57E-02	1.03E-06	1.17E-14	0.	1.62E-02
80	2.80 0.32E-04	0.	4.90E-12	0.	0.	1.07E-14	1.00E-05	0.	1.54E-02	1.03E-06	1.30E-14	0.	1.57E-02
81	2.70 1.17E-04	0.	3.10E-12	0.	0.	1.35E-15	2.00E-06	0.	1.50E-02	1.03E-06	1.45E-14	0.	1.51E-02
82	2.60 0.46E-05	0.	9.50E-13	0.	0.	3.04E-16	3.85E-07	0.	1.48E-02	1.03E-06	1.63E-14	0.	1.45E-02
83	2.50 1.20E-06	0.	2.63E-13	0.	0.	2.12E-17	5.23E-08	0.	1.40E-02	1.03E-06	1.83E-14	0.	1.36E-02
84	2.40 0.	0.	7.74E-11	0.	0.	9.73E-17	3.50E-09	0.	1.34E-02	1.03E-06	2.07E-14	0.	1.25E-02
85	2.30 0.	0.	2.43E-09	0.	0.	0.	0.	0.	1.25E-02	1.03E-06	2.35E-14	0.	1.14E-02
86	2.20 0.	0.	2.00E-09	0.	0.	0.	0.	0.	1.16E-02	1.02E-06	2.69E-14	0.	1.05E-02
87	2.10 0.	0.	1.90E-08	0.	0.	0.	0.	0.	1.05E-02	1.02E-06	3.09E-14	0.	0.95E-02
88	2.00 0.	0.	1.00E-08	0.	0.	0.	0.	0.	0.92E-03	0.00E-07	3.50E-14	0.	0.82E-03
89	1.90 0.	0.	1.01E-07	0.	0.	0.	0.	0.	7.43E-03	0.00E-07	4.17E-14	0.	7.43E-03
90	1.80 0.	0.	1.07E-07	0.	0.	0.	0.	0.	5.41E-03	0.07E-07	4.91E-14	0.	5.41E-03
91	1.70 0.	0.	1.44E-07	0.	0.	0.	0.	0.	2.55E-03	0.55E-07	5.83E-14	0.	2.55E-03
92	1.60 0.	0.	1.20E-07	0.	0.	0.	0.	0.	2.53E-03	7.23E-07	6.99E-14	0.	2.53E-03
93	1.50 0.	0.	9.04E-08	0.	0.	0.	0.	0.	1.46E-03	3.20E-07	8.49E-14	0.	1.46E-03
94	1.40 0.	0.	2.72E-07	0.	0.	0.	0.	0.	7.77E-04	0.	1.04E-13	0.	7.78E-04
95	1.30 0.	0.	7.53E-08	0.	0.	0.	0.	0.	3.10E-04	0.	1.50E-13	0.	3.10E-04
96	1.20 0.	0.	1.04E-07	0.	0.	0.	0.	0.	0.	0.	2.15E-13	0.	1.04E-07
97	1.10 0.	0.	5.50E-08	0.	0.	0.	0.	0.	0.	0.	2.67E-13	0.	0.75E-05
98	1.00 0.	0.	8.70E-08	0.	0.	0.	0.	0.	0.	0.	3.94E-13	0.	0.55E-06
99	0.90 0.	0.	3.01E-08	0.	0.	0.	0.	0.	0.	0.	5.62E-13	0.	0.45E-05
100	0.80 0.	0.	1.07E-08	0.	0.	0.	0.	0.	0.	0.	8.42E-13	0.	1.01E-04
101	0.70 0.	0.	4.45E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.74E-04
102	0.60 0.	0.	1.04E-12	0.	0.	0.	0.	0.	0.	0.	1.34E-12	0.	3.42E-04

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		3000.		DENSITY (GM/CC)		1.293E-03 (10.0E-01 NORMAL)		NO		NO		O-		FREE-FREE		O	
PHOTON 02 S-R		02 S-R		N2 B-W		NO		NO		NO		2		PHOTO-DET (IONS)		P.E.	
(ENERGY BANDS		CONT,		W, 1		BETA		GAMMA		NO		NO		P.E.		P.E.	
E.V.																	
1	10.75	0.	0.	2.67E-22	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.27E-07	0.	0.	2.67E-02
2	10.60	0.	0.	1.78E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.27E-07	0.	0.	1.78E-02
3	10.50	0.	0.	1.32E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.28E-07	0.	0.	1.32E-02
4	10.40	0.	0.	9.57E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.28E-07	0.	0.	9.57E-03
5	10.30	0.	0.	5.71E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.28E-07	0.	0.	5.71E-03
6	10.20	0.	0.	4.64E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.28E-07	0.	0.	4.64E-03
7	10.10	0.	0.	3.48E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.29E-07	0.	0.	3.48E-03
8	10.00	0.	0.	1.82E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.29E-07	0.	0.	1.82E-03
9	9.90	0.	0.	1.71E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.29E-07	0.	0.	1.71E-03
10	9.80	0.	0.	1.14E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.30E-07	0.	0.	1.14E-03
11	9.70	0.	0.	5.90E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.30E-07	0.	0.	5.90E-04
12	9.60	0.	0.	6.47E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.31E-07	0.	0.	6.47E-04
13	9.50	0.	0.	2.71E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.31E-07	0.	0.	2.71E-04
14	9.40	0.	0.	1.00E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.32E-07	0.	0.	1.00E-04
15	9.30	0.	0.	1.73E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.32E-07	0.	0.	1.73E-04
16	9.20	0.	0.	2.44E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.33E-07	0.	0.	2.44E-04
17	9.10	0.	0.	3.16E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.34E-07	0.	0.	3.16E-04
18	9.00	0.	0.	3.89E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.34E-07	0.	0.	3.89E-04
19	8.90	0.	0.	4.54E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.35E-07	0.	0.	4.54E-04
20	8.80	0.	0.	4.72E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.35E-07	0.	0.	4.72E-04
21	8.70	0.	0.	4.50E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.36E-07	0.	0.	4.50E-04
22	8.60	0.	0.	4.24E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.36E-07	0.	0.	4.24E-04
23	8.50	0.	0.	4.04E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.37E-07	0.	0.	4.04E-04
24	8.40	0.	0.	3.84E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.37E-07	0.	0.	3.84E-04
25	8.30	0.	0.	3.63E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.38E-07	0.	0.	3.63E-04
26	8.20	0.	0.	3.41E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.38E-07	0.	0.	3.41E-04
27	8.10	0.	0.	3.17E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.39E-07	0.	0.	3.17E-04
28	8.00	0.	0.	2.93E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.39E-07	0.	0.	2.93E-04
29	7.90	0.	0.	2.71E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.40E-07	0.	0.	2.71E-04
30	7.80	0.	0.	2.49E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.40E-07	0.	0.	2.49E-04
31	7.70	0.	0.	2.24E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.41E-07	0.	0.	2.24E-04
32	7.60	0.	0.	2.04E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.42E-07	0.	0.	2.04E-04
33	7.50	0.	0.	1.81E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.43E-07	0.	0.	1.81E-04
34	7.40	0.	0.	1.62E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.43E-07	0.	0.	1.62E-04
35	7.30	0.	0.	1.44E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.44E-07	0.	0.	1.44E-04
36	7.20	0.	0.	1.25E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.45E-07	0.	0.	1.25E-04
37	7.10	0.	0.	1.04E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.46E-07	0.	0.	1.04E-04
38	7.00	0.	0.	8.75E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.47E-07	0.	0.	8.75E-05
39	6.90	0.	0.	7.39E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.48E-07	0.	0.	7.39E-05
40	6.80	0.	0.	6.09E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.49E-07	0.	0.	6.09E-05
41	6.70	0.	0.	5.56E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.50E-07	0.	0.	5.56E-05
42	6.60	0.	0.	4.69E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.51E-07	0.	0.	4.69E-05
43	6.50	0.	0.	4.04E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.52E-07	0.	0.	4.04E-05
44	6.40	0.	0.	3.45E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.53E-07	0.	0.	3.45E-05
45	6.30	0.	0.	2.97E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.54E-07	0.	0.	2.97E-05
46	6.20	0.	0.	2.58E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.55E-07	0.	0.	2.58E-05
47	6.10	0.	0.	2.26E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.56E-07	0.	0.	2.26E-05
48	6.00	0.	0.	1.96E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.57E-07	0.	0.	1.96E-05
49	5.90	0.	0.	1.68E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.58E-07	0.	0.	1.68E-05
50	5.80	0.	0.	1.46E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.59E-07	0.	0.	1.46E-05
51	5.70	0.	0.	1.26E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.60E-07	0.	0.	1.26E-05

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R		TEMPERATURE (DEGREES K)		3000.		DENSITY (GM/CC)		1.293E-03 (10.0E-01 NORMAL)		0		TOTAL AIR	
ENERGY BANDS	M2	2ND POS.	1ST POS.	M2	2ND POS.	1ST POS.	M2	2ND POS.	1ST POS.	M2	2ND POS.	0	P.E.
50 5.60 4.03E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.30E-01
51 5.70 4.15E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.11E-01
52 5.80 4.35E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.78E-01
53 5.90 4.61E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.40E-01
54 6.00 4.90E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.08E-01
55 6.10 5.20E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.82E-01
56 6.20 5.50E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.06E-01
57 6.30 5.80E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.15E-01
58 6.40 6.10E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.25E-01
59 6.50 6.40E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.36E-01
60 6.60 6.70E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.48E-01
61 6.70 7.00E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.61E-01
62 6.80 7.30E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.75E-01
63 6.90 7.60E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.90E-01
64 7.00 7.90E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.06E-01
65 7.10 8.20E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.23E-01
66 7.20 8.50E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.41E-01
67 7.30 8.80E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.60E-01
68 7.40 9.10E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.80E-01
69 7.50 9.40E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.01E-01
70 7.60 9.70E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.23E-01
71 7.70 1.00E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.46E-01
72 7.80 1.05E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.70E-01
73 7.90 1.10E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.95E-01
74 8.00 1.15E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.21E-01
75 8.10 1.20E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.48E-01
76 8.20 1.25E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.76E-01
77 8.30 1.30E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.05E-01
78 8.40 1.35E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.35E-01
79 8.50 1.40E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.66E-01
80 8.60 1.45E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.98E-01
81 8.70 1.50E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.31E-01
82 8.80 1.55E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.65E-01
83 8.90 1.60E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.00E-01
84 9.00 1.65E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.36E-01
85 9.10 1.70E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.73E-01
86 9.20 1.75E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.11E-01
87 9.30 1.80E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.50E-01
88 9.40 1.85E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	8.90E-01
89 9.50 1.90E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.31E-01
90 9.60 1.95E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.73E-01
91 9.70 2.00E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.01E-01
92 9.80 2.05E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01
93 9.90 2.10E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.19E-01
94 1.00 2.15E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.28E-01
95 1.10 2.20E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.38E-01
96 1.20 2.25E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.48E-01
97 1.30 2.30E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.58E-01
98 1.40 2.35E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.69E-01
99 1.50 2.40E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.80E-01
100 1.60 2.45E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.91E-01
101 1.70 2.50E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.03E-01
102 1.80 2.55E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.15E-01

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		3000.	DENSITY (GM/CC)		1.293E-04 (10.0E-02 NORMAL)		NO		O- FREE-FREE		N		O	
PHOTON 02 S-R		02 S-R	NO		NO		2		PHOTO-DET (IONS)		P.E.		P.E.	
ENERGY BANDS		CONT.	NO		NO		NO		NO		NO		NO	
E.V.			NO		NO		NO		NO		NO		NO	
1	10.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2	10.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3	10.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4	10.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5	10.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6	10.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7	10.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8	10.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9	9.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10	9.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	9.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12	9.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13	9.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14	9.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15	9.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16	9.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17	9.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18	9.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19	8.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20	8.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	8.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22	8.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23	8.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24	8.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25	8.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26	8.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27	8.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28	8.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29	7.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30	7.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	7.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32	7.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33	7.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34	7.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35	7.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36	7.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37	7.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38	7.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39	6.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40	6.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	6.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42	6.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43	6.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44	6.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45	6.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46	6.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47	6.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48	6.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49	5.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50	5.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	5.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

[illegible]

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 3000. DENSITY (GM/CC) 1.2932-05 (10.04-03 NORMAL)

PHOTON ENERGY E.V.	Q2 S-R BANDS	Q2 S-R CONV.	M2 B-H NC. 1	NO BETA	NO GAMMA	F 2	Q- PHOTO-MET (10MS)	Q- FREE-FREE N P.E.	Q P.F.	TOTAL AIR
1 10.70 0.	0	2.68E-04	0.	0.	0.	0.	1.98E-09 0.	0.	0.	2.68E-04
2 10.60 0.	0.	1.70E-04	0.	0.	0.	0.	1.91E-09 0.	0.	0.	1.70E-04
3 10.50 0.	0.	1.33E-04	0.	0.	0.	0.	1.91E-09 0.	0.	0.	1.33E-04
4 10.40 0.	0.	9.62E-05	0.	0.	0.	0.	1.91E-09 0.	0.	0.	9.62E-05
5 10.30 0.	0.	5.74E-05	0.	0.	0.	0.	1.91E-09 0.	0.	0.	5.74E-05
6 10.20 0.	0.	4.47E-05	0.	0.	0.	0.	1.92E-09 0.	0.	0.	4.47E-05
7 10.10 0.	0.	3.50E-05	0.	0.	0.	0.	1.92E-09 0.	0.	0.	3.50E-05
8 10.00 0.	0.	1.83E-05	0.	0.	0.	0.	1.92E-09 0.	0.	0.	1.83E-05
9 9.90 0.	0.	1.72E-05	0.	0.	0.	0.	1.92E-09 0.	0.	0.	1.72E-05
10 9.80 0.	0.	1.14E-05	0.	0.	0.	0.	1.92E-09 0.	0.	0.	1.14E-05
11 9.70 0.	0.	6.93E-06	0.	0.	0.	0.	1.93E-09 0.	0.	0.	6.93E-06
12 9.60 0.	0.	4.59E-06	0.	0.	0.	0.	1.94E-09 0.	0.	0.	4.59E-06
13 9.50 0.	1.93E-02	3.16E-06	0.	0.	0.	0.	1.94E-09 0.	0.	0.	1.93E-02
14 9.40 0.	7.22E-02	2.28E-06	0.	0.	0.	0.	1.95E-09 0.	0.	0.	7.22E-02
15 9.30 0.	1.25E-01	2.05E-06	0.	0.	0.	0.	1.95E-09 0.	0.	0.	1.25E-01
16 9.20 0.	1.78E-01	8.24E-07	0.	0.	0.	0.	1.96E-09 0.	0.	0.	1.78E-01
17 9.10 0.	2.28E-01	9.99E-07	0.	0.	0.	0.	1.97E-09 0.	0.	0.	2.28E-01
18 9.00 0.	2.78E-01	9.86E-07	0.	0.	0.	0.	1.98E-09 0.	0.	0.	2.78E-01
19 8.90 0.	3.28E-01	3.52E-07	0.	0.	0.	0.	1.98E-09 0.	0.	0.	3.28E-01
20 8.80 0.	3.41E-01	2.82E-07	0.	0.	0.	0.	1.99E-09 0.	0.	0.	3.41E-01
21 8.70 0.	3.25E-01	1.36E-07	0.	0.	0.	0.	2.00E-09 0.	0.	0.	3.25E-01
22 8.60 0.	3.89E-01	1.42E-07	0.	0.	0.	0.	2.00E-09 0.	0.	0.	3.89E-01
23 8.50 0.	2.52E-01	6.50E-08	0.	0.	0.	0.	2.01E-09 0.	0.	0.	2.52E-01
24 8.40 0.	2.72E-01	6.12E-08	0.	0.	0.	0.	2.02E-09 0.	0.	0.	2.72E-01
25 8.30 0.	2.62E-01	2.90E-08	0.	0.	0.	0.	2.03E-09 0.	0.	0.	2.62E-01
26 8.20 0.	2.45E-01	2.57E-08	0.	0.	0.	0.	2.04E-09 0.	0.	0.	2.45E-01
27 8.10 0.	2.26E-01	1.36E-08	0.	0.	0.	0.	2.05E-09 4.91E-19	0.	0.	2.26E-01
28 8.00 0.	2.11E-01	1.11E-08	0.	0.	0.	0.	2.06E-09 4.80E-19	0.	0.	2.11E-01
29 7.90 0.	1.95E-01	9.13E-09	0.	0.	0.	0.	2.07E-09 4.86E-19	0.	0.	1.95E-01
30 7.80 0.	1.79E-01	5.69E-09	0.	0.	0.	0.	2.08E-09 5.92E-19	0.	0.	1.79E-01
31 7.70 0.	1.63E-01	2.96E-09	0.	0.	0.	0.	2.10E-09 5.25E-19	0.	0.	1.63E-01
32 7.60 0.	1.47E-01	2.06E-09	0.	0.	0.	0.	2.11E-09 5.40E-19	0.	0.	1.47E-01
33 7.50 0.	1.31E-01	1.30E-09	0.	0.	0.	0.	2.12E-09 5.92E-19	0.	0.	1.31E-01
34 7.40 0.	1.17E-01	8.45E-10	0.	0.	0.	0.	2.13E-09 5.92E-19	0.	0.	1.17E-01
35 7.30 0.	1.04E-01	5.95E-10	0.	0.	0.	0.	2.14E-09 6.17E-19	0.	0.	1.04E-01
36 7.20 0.	8.99E-02	3.47E-10	0.	0.	0.	0.	2.15E-09 6.32E-19	0.	0.	8.99E-02
37 7.10 0.	7.62E-02	2.35E-10	0.	0.	0.	0.	2.17E-09 6.71E-19	0.	0.	7.62E-02
38 7.00 0.	6.30E-04	0.	0.	0.	0.	0.	2.18E-09 7.00E-19	0.	0.	6.30E-04
39 6.90 0.	1.08E-03	0.	0.	0.	0.	0.	2.19E-09 7.31E-19	0.	0.	1.08E-03
40 6.80 0.	6.90E-04	0.	0.	0.	0.	0.	2.20E-09 7.64E-19	0.	0.	6.90E-04
41 6.70 0.	4.01E-04	0.	0.	0.	0.	0.	2.22E-09 7.64E-19	0.	0.	4.01E-04
42 6.60 0.	2.01E-04	0.	0.	0.	0.	0.	2.24E-09 7.98E-19	0.	0.	2.01E-04
43 6.50 0.	1.01E-04	0.	0.	0.	0.	0.	2.26E-09 8.35E-19	0.	0.	1.01E-04
44 6.40 0.	1.49E-04	0.	0.	0.	0.	0.	2.28E-09 8.74E-19	0.	0.	1.49E-04
45 6.30 0.	1.49E-04	0.	0.	0.	0.	0.	2.29E-09 9.16E-19	0.	0.	1.49E-04
46 6.20 0.	6.12E-04	0.	0.	0.	0.	0.	2.31E-09 9.61E-19	0.	0.	6.12E-04
47 6.10 0.	1.77E-03	0.	0.	0.	0.	0.	2.33E-09 1.01E-18	0.	0.	1.77E-03
48 6.00 0.	3.36E-03	0.	0.	0.	0.	0.	2.35E-09 1.06E-18	0.	0.	3.36E-03
49 5.90 0.	3.36E-03	0.	0.	0.	0.	0.	2.36E-09 1.11E-18	0.	0.	3.36E-03
50 5.80 0.	4.30E-03	0.	0.	0.	0.	0.	2.38E-09 1.17E-18	0.	0.	4.30E-03
51 5.70 0.	3.34E-03	0.	0.	0.	0.	0.	2.39E-09 1.23E-18	0.	0.	3.34E-03
				1.83E-04	2.30E-04		2.39E-09 1.30E-18	0.	0.	2.39E-09

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R ENERGY BANDS		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E+05 (10.0E-03 NORMAL)		0		TOTAL AIR				
1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	NO	BETA	AO GAMMA	NO VIB-ROT	NO	2	PHOTO-DET (TOMS)	FREE-FREE P.E.	N P.E.	0	P.E.
52	5.60	3.59E-03	0.	0.	0.	7.39E-05	1.15E-03	0.	0.	2.03E-09	1.37E-18	0.	0.	4.72E-03
53	5.70	2.96E-03	0.	0.	0.	1.23E-04	2.42E-03	0.	0.	2.04E-09	1.44E-18	0.	0.	5.52E-03
54	5.80	2.46E-03	0.	0.	0.	8.11E-05	2.08E-04	0.	0.	2.09E-09	1.53E-18	0.	0.	2.78E-03
55	5.90	2.06E-03	0.	0.	0.	7.82E-05	1.08E-03	0.	0.	2.07E-09	1.42E-18	0.	0.	3.31E-03
56	5.20	9.48E-04	0.	0.	0.	6.71E-05	4.10E-04	0.	0.	2.00E-09	1.71E-18	0.	0.	1.33E-03
57	5.10	7.03E-04	0.	0.	0.	5.06E-05	4.11E-04	0.	0.	2.10E-09	1.61E-18	0.	0.	1.16E-03
58	5.00	4.45E-04	0.	0.	0.	3.29E-05	4.50E-04	0.	0.	2.12E-09	1.62E-18	0.	0.	9.28E-04
59	4.90	3.71E-04	0.	0.	0.	3.00E-05	1.57E-04	0.	0.	2.13E-09	2.64E-18	0.	0.	5.78E-04
60	4.80	3.65E-04	0.	0.	0.	3.11E-05	2.11E-04	0.	0.	2.15E-09	2.17E-18	0.	0.	6.08E-04
61	4.70	3.15E-04	0.	0.	0.	2.35E-05	6.05E-05	0.	0.	2.17E-09	2.32E-18	0.	0.	3.99E-04
62	4.60	2.94E-04	0.	0.	0.	2.01E-05	9.27E-05	0.	0.	2.10E-09	2.47E-18	0.	0.	4.07E-04
63	4.50	2.23E-04	0.	0.	0.	1.32E-05	2.41E-05	0.	0.	2.20E-09	2.64E-18	0.	0.	2.68E-04
64	4.40	1.68E-04	0.	0.	0.	1.06E-05	3.84E-05	0.	0.	2.22E-09	2.62E-18	0.	0.	2.12E-04
65	4.30	1.15E-04	0.	0.	0.	7.40E-06	8.20E-06	0.	0.	2.24E-09	3.63E-18	0.	0.	1.31E-04
66	4.20	8.24E-05	0.	0.	0.	6.17E-06	9.97E-06	0.	0.	2.24E-09	3.29E-18	0.	0.	9.89E-05
67	4.10	6.13E-05	0.	0.	0.	4.21E-06	2.49E-06	0.	0.	2.27E-09	3.49E-18	0.	0.	6.86E-05
68	4.00	4.11E-05	0.	0.	0.	3.22E-06	1.18E-06	0.	0.	2.28E-09	4.09E-18	0.	0.	4.98E-05
69	3.90	2.39E-05	0.	0.	0.	1.86E-06	3.17E-07	0.	0.	2.28E-09	4.38E-18	0.	0.	2.78E-05
70	3.80	2.23E-05	0.	0.	0.	1.23E-12	1.47E-16	0.	0.	2.28E-09	4.38E-18	0.	0.	2.78E-05
71	3.70	1.23E-05	0.	0.	0.	7.60E-12	3.33E-17	0.	0.	2.28E-09	4.75E-18	0.	0.	1.34E-05
72	3.60	8.44E-06	0.	0.	0.	5.10E-13	2.70E-17	0.	0.	2.28E-09	5.16E-18	0.	0.	6.86E-06
73	3.50	5.07E-06	0.	0.	0.	2.84E-13	2.04E-16	0.	0.	2.28E-09	5.61E-18	0.	0.	6.86E-06
74	3.40	3.53E-06	0.	0.	0.	2.47E-13	1.13E-16	0.	0.	2.28E-09	6.12E-18	0.	0.	4.31E-06
75	3.30	2.25E-06	0.	0.	0.	7.28E-13	6.69E-17	0.	0.	2.28E-09	6.70E-18	0.	0.	2.79E-06
76	3.20	1.33E-06	0.	0.	0.	9.48E-14	1.60E-16	0.	0.	2.28E-09	7.34E-18	0.	0.	1.84E-06
77	3.10	8.87E-07	0.	0.	0.	1.50E-13	2.25E-16	0.	0.	2.28E-09	8.97E-18	0.	0.	1.34E-06
78	3.00	5.49E-07	0.	0.	0.	2.64E-14	7.30E-17	0.	0.	2.28E-09	9.91E-18	0.	0.	9.63E-07
79	2.90	3.03E-07	0.	0.	0.	2.34E-14	1.75E-16	0.	0.	2.28E-09	9.86E-18	0.	0.	6.78E-07
80	2.80	2.33E-07	0.	0.	0.	4.97E-15	2.64E-16	0.	0.	2.28E-09	1.09E-17	0.	0.	5.85E-07
81	2.70	8.29E-08	0.	0.	0.	3.18E-15	3.35E-17	0.	0.	2.28E-09	1.22E-17	0.	0.	4.19E-07
82	2.60	1.73E-08	0.	0.	0.	9.68E-16	7.55E-18	0.	0.	2.28E-09	1.37E-17	0.	0.	3.43E-07
83	2.50	8.46E-10	0.	0.	0.	2.64E-16	5.28E-18	0.	0.	2.28E-09	1.44E-17	0.	0.	3.13E-07
84	2.40	0.	0.	0.	0.	7.62E-14	0.	0.	0.	2.28E-09	1.44E-17	0.	0.	3.08E-07
85	2.30	0.	0.	0.	0.	2.44E-12	0.	0.	0.	2.28E-09	1.96E-17	0.	0.	2.80E-07
86	2.20	0.	0.	0.	0.	2.31E-12	0.	0.	0.	2.28E-09	2.26E-17	0.	0.	2.99E-07
87	2.10	0.	0.	0.	0.	1.49E-11	0.	0.	0.	2.28E-09	2.66E-17	0.	0.	2.34E-07
88	2.00	0.	0.	0.	0.	1.11E-11	0.	0.	0.	2.28E-09	3.81E-17	0.	0.	1.97E-07
89	1.90	0.	0.	0.	0.	1.02E-11	0.	0.	0.	2.28E-09	4.13E-17	0.	0.	1.72E-07
90	1.80	0.	0.	0.	0.	1.68E-10	0.	0.	0.	2.28E-09	4.90E-17	0.	0.	9.45E-08
91	1.70	0.	0.	0.	0.	1.14E-10	0.	0.	0.	2.28E-09	5.08E-17	0.	0.	9.73E-08
92	1.60	0.	0.	0.	0.	1.29E-10	0.	0.	0.	2.28E-09	7.13E-17	0.	0.	3.29E-08
93	1.50	0.	0.	0.	0.	9.73E-11	0.	0.	0.	2.28E-09	8.53E-17	0.	0.	3.29E-08
94	1.40	0.	0.	0.	0.	2.43E-10	0.	0.	0.	2.28E-09	8.78E-17	0.	0.	1.74E-08
95	1.30	0.	0.	0.	0.	7.38E-11	0.	0.	0.	2.28E-09	8.78E-17	0.	0.	6.97E-09
96	1.20	0.	0.	0.	0.	1.97E-10	0.	0.	0.	2.28E-09	1.30E-16	0.	0.	1.97E-09
97	1.10	0.	0.	0.	0.	5.53E-11	0.	0.	0.	2.28E-09	1.61E-16	0.	0.	7.37E-09
98	1.00	0.	0.	0.	0.	8.83E-11	0.	0.	0.	2.28E-09	2.41E-16	0.	0.	7.20E-09
99	0.90	0.	0.	0.	0.	3.82E-11	0.	0.	0.	2.28E-09	3.21E-16	0.	0.	5.52E-09
100	0.80	0.	0.	0.	0.	1.48E-11	0.	0.	0.	2.28E-09	4.73E-16	0.	0.	8.50E-09
101	0.70	0.	0.	0.	0.	4.45E-12	0.	0.	0.	2.28E-09	7.08E-16	0.	0.	2.73E-07
102	0.60	0.	0.	0.	0.	1.85E-15	0.	0.	0.	2.28E-09	1.13E-15	0.	0.	2.87E-07

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R ENERGY BANDS E.V.		02 S-R CONT.	TEMPERATURE (DEGREES K)	3800.	DENSITY (GM/CC) 1.293E-06 (10.0E-04 NORMAL)	NO 2	0- PHOTO-DET (100S)	FREE-FREE P.E.	NO 2	0- PHOTO-DET (100S)	FREE-FREE P.E.	TOTAL AIR P.E.
1	10.70	0.	2.70E-03	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	2.70E-03
2	10.80	0.	1.7E-03	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.7E-03
3	10.90	0.	1.5E-03	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.5E-03
4	10.40	0.	9.69E-06	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	9.69E-06
5	10.30	0.	5.70E-06	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	5.70E-06
6	10.20	0.	4.70E-06	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	4.70E-06
7	10.10	0.	3.52E-06	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	3.52E-06
8	10.00	0.	1.04E-06	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.04E-06
9	9.90	0.	1.73E-06	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.73E-06
10	9.80	0.	1.15E-06	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.15E-06
11	9.70	0.	6.07E-07	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	6.07E-07
12	9.60	0.	6.25E-07	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	6.25E-07
13	9.50	0.	3.21E-07	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	3.21E-07
14	9.40	0.	3.40E-07	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	3.40E-07
15	9.30	0.	4.03E-07	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	4.03E-07
16	9.20	0.	8.57E-08	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	8.57E-08
17	9.10	0.	1.10E-07	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.10E-07
18	9.00	0.	1.34E-07	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.34E-07
19	8.90	0.	1.50E-07	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.50E-07
20	8.80	0.	1.64E-07	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.64E-07
21	8.70	0.	1.57E-07	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.57E-07
22	8.60	0.	1.49E-07	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.49E-07
23	8.50	0.	1.41E-07	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.41E-07
24	8.40	0.	1.33E-07	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.33E-07
25	8.30	0.	1.24E-07	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.24E-07
26	8.20	0.	1.18E-07	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.18E-07
27	8.10	0.	1.10E-07	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.10E-07
28	8.00	0.	1.02E-07	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.02E-07
29	7.90	0.	9.42E-08	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	9.42E-08
30	7.80	0.	8.65E-08	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	8.65E-08
31	7.70	0.	7.87E-08	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	7.87E-08
32	7.60	0.	7.08E-08	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	7.08E-08
33	7.50	0.	6.30E-08	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	6.30E-08
34	7.40	0.	5.62E-08	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	5.62E-08
35	7.30	0.	5.00E-08	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	5.00E-08
36	7.20	0.	4.34E-08	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	4.34E-08
37	7.10	0.	3.68E-08	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	3.68E-08
38	7.00	0.	3.04E-08	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	3.04E-08
39	6.90	0.	2.40E-08	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	2.40E-08
40	6.80	0.	1.76E-08	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.76E-08
41	6.70	0.	1.12E-08	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.12E-08
42	6.60	0.	9.70E-09	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	9.70E-09
43	6.50	0.	8.10E-09	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	8.10E-09
44	6.40	0.	7.10E-09	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	7.10E-09
45	6.30	0.	6.10E-09	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	6.10E-09
46	6.20	0.	5.10E-09	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	5.10E-09
47	6.10	0.	4.10E-09	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	4.10E-09
48	6.00	0.	3.10E-09	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	3.10E-09
49	5.90	0.	2.10E-09	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	2.10E-09
50	5.80	0.	1.10E-09	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.10E-09
51	5.70	0.	1.10E-09	0.	0.	0.	1.12E-10	0.	0.	1.12E-10	0.	1.10E-09

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON O2 S-R ENERGY BANDS		TEMPERATURE (DEGREES K)		3000.		DENSITY (GM/CC)		1.293E-06 (10.0E-04 NORMAL)		0		TOTAL AIR	
1ST POS.	2ND POS.	1ST NEG.	2ND POS.	BETA	GAMMA	NO	NO	Q-	FREE-FREE	N	P.E.	0	P.F.
52	5.40	1.69E-04	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	9.53E-20	0.	2.54E-04	0.
53	5.50	1.44E-04	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.01E-19	0.	2.54E-04	0.
54	5.40	1.10E-04	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.00E-19	0.	2.54E-04	0.
55	5.30	9.06E-05	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.17E-19	0.	2.54E-04	0.
56	5.20	4.09E-05	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
57	5.10	3.39E-05	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
58	5.00	2.14E-05	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
59	4.90	1.79E-05	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
60	4.80	1.77E-05	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
61	4.70	1.52E-05	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
62	4.60	1.41E-05	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
63	4.50	1.07E-05	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
64	4.40	8.09E-06	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
65	4.30	5.55E-06	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
66	4.20	3.97E-06	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
67	4.10	2.95E-06	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
68	4.00	1.98E-06	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
69	3.90	1.15E-06	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
70	3.80	7.99E-07	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
71	3.70	5.89E-07	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
72	3.60	4.07E-07	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
73	3.50	2.83E-07	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
74	3.40	1.70E-07	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
75	3.30	1.09E-07	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
76	3.20	6.41E-08	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
77	3.10	4.28E-08	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
78	3.00	2.62E-08	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
79	2.90	1.45E-08	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
80	2.80	7.12E-09	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
81	2.70	3.95E-09	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
82	2.60	2.13E-10	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
83	2.50	1.03E-11	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
84	2.40	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
85	2.30	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
86	2.20	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
87	2.10	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
88	2.00	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
89	1.90	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
90	1.80	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
91	1.70	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
92	1.60	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
93	1.50	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
94	1.40	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
95	1.30	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
96	1.20	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
97	1.10	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
98	1.00	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
99	0.90	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
100	0.80	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
101	0.70	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.
102	0.60	0.	0.	0.	0.	5.35E-06	8.00E-05	0.	1.10E-10	1.19E-19	0.	2.54E-04	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		3000.		DENSITY (GM/CC) 1.2935-00 ((16.0C-16 NORMAL))		NO		0-		PRES-FREE		N		TOTAL AIR	
PHOTON 02 S-R		02 S-R		NO		NO		2		PHOTO-DET (10MS)		P.E.		P.E.	
ENERGY BANDS		CONT.		NO		NO		NO		NO		NO		NO	
E.V.		NO. 1		NO		NO		NO		NO		NO		NO	
1	10.70 0.	0.	2.74E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2	10.40 0.	0.	1.74E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3	10.50 0.	0.	1.56E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4	10.40 0.	0.	9.83E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5	10.30 0.	0.	5.87E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6	10.20 0.	0.	4.77E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7	10.10 0.	0.	3.57E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8	10.00 0.	0.	1.87E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9	9.90 0.	0.	1.76E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10	9.80 0.	0.	1.17E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	9.70 0.	0.	6.15E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12	9.60 0.	0.	6.44E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13	9.50 0.	0.	2.23E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14	9.40 0.	0.	6.27E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15	9.30 0.	0.	1.43E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16	9.20 0.	0.	2.03E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17	9.10 0.	0.	2.61E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18	9.00 0.	0.	3.18E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19	8.90 0.	0.	3.75E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20	8.80 0.	0.	3.90E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	8.70 0.	0.	3.71E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22	8.60 0.	0.	3.33E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23	8.50 0.	0.	3.35E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24	8.40 0.	0.	3.14E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25	8.30 0.	0.	3.80E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26	8.20 0.	0.	2.81E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27	8.10 0.	0.	2.61E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28	8.00 0.	0.	2.42E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29	7.90 0.	0.	2.23E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30	7.80 0.	0.	2.05E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	7.70 0.	0.	1.87E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32	7.60 0.	0.	1.68E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33	7.50 0.	0.	1.49E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34	7.40 0.	0.	1.33E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35	7.30 0.	0.	1.19E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36	7.20 0.	0.	1.03E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37	7.10 0.	0.	8.72E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38	7.00 0.	0.	7.19E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39	6.90 0.	0.	5.60E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40	6.80 0.	0.	4.36E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	6.70 0.	0.	3.85E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42	6.60 0.	0.	2.36E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43	6.50 0.	0.	1.19E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44	6.40 0.	0.	1.03E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45	6.30 0.	0.	8.72E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46	6.20 0.	0.	7.19E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47	6.10 0.	0.	5.60E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48	6.00 0.	0.	4.36E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49	5.90 0.	0.	3.85E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50	5.80 0.	0.	2.36E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	5.70 0.	0.	1.19E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

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ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 3000. DENSITY (GM/CC) 1.293E-09 (10.0E-07 NORMAL)												
PHOTON 02 S-R ENERGY BANDS F...	02 S-R CONT.	N2 B-H NO. 1	NO BETA	NO GAMMA	O-			TOTAL AIR				
					PHOTO-DET (IONS)	FREE-FREE (IONS)	P.E.					
1 10.70 0.	0.	2.74E-08	0.	0.	0.	1.22E-15 0.	0.	0.	2.74E-08			
2 10.60 0.	0.	1.74E-08	0.	0.	0.	1.22E-15 0.	0.	0.	1.74E-08			
3 10.50 0.	0.	1.36E-08	0.	0.	0.	1.22E-15 0.	0.	0.	1.36E-08			
4 10.40 0.	0.	9.83E-09	0.	0.	0.	1.22E-15 0.	0.	0.	9.83E-09			
5 10.30 0.	0.	5.07E-09	0.	0.	0.	1.22E-15 0.	0.	0.	5.07E-09			
6 10.20 0.	0.	4.77E-09	0.	0.	0.	1.22E-15 0.	0.	0.	4.77E-09			
7 10.10 0.	0.	3.58E-09	0.	0.	0.	1.22E-15 0.	0.	0.	3.58E-09			
8 10.00 0.	0.	1.87E-09	0.	0.	0.	1.22E-15 0.	0.	0.	1.87E-09			
9 9.90 0.	0.	1.74E-09	0.	0.	0.	1.22E-15 0.	0.	0.	1.74E-09			
10 9.80 0.	0.	1.17E-09	0.	0.	0.	1.22E-15 0.	0.	0.	1.17E-09			
11 9.70 0.	0.	6.19E-10	0.	0.	0.	1.22E-15 0.	0.	0.	6.19E-10			
12 9.60 0.	0.	6.63E-10	0.	0.	0.	1.22E-15 0.	0.	0.	6.63E-10			
13 9.50 0.	0.	2.29E-09	0.	0.	0.	1.22E-15 0.	0.	0.	2.29E-09			
14 9.40 0.	0.	4.49E-09	0.	0.	0.	1.22E-15 0.	0.	0.	4.49E-09			
15 9.30 0.	0.	1.47E-08	0.	0.	0.	1.22E-15 0.	0.	0.	1.47E-08			
16 9.20 0.	0.	2.09E-08	0.	0.	0.	1.22E-15 0.	0.	0.	2.09E-08			
17 9.10 0.	0.	2.68E-08	0.	0.	0.	1.22E-15 0.	0.	0.	2.68E-08			
18 9.00 0.	0.	3.26E-08	0.	0.	0.	1.22E-15 0.	0.	0.	3.26E-08			
19 8.90 0.	0.	3.85E-08	0.	0.	0.	1.22E-15 0.	0.	0.	3.85E-08			
20 8.80 0.	0.	4.08E-08	0.	0.	0.	1.22E-15 0.	0.	0.	4.08E-08			
21 8.70 0.	0.	3.81E-08	0.	0.	0.	1.22E-15 0.	0.	0.	3.81E-08			
22 8.60 0.	0.	3.63E-08	0.	0.	0.	1.22E-15 0.	0.	0.	3.63E-08			
23 8.50 0.	0.	3.44E-08	0.	0.	0.	1.22E-15 0.	0.	0.	3.44E-08			
24 8.40 0.	0.	3.25E-08	0.	0.	0.	1.22E-15 0.	0.	0.	3.25E-08			
25 8.30 0.	0.	3.06E-08	0.	0.	0.	1.22E-15 0.	0.	0.	3.06E-08			
26 8.20 0.	0.	2.87E-08	0.	0.	0.	1.22E-15 0.	0.	0.	2.87E-08			
27 8.10 0.	0.	2.68E-08	0.	0.	0.	1.22E-15 0.	0.	0.	2.68E-08			
28 8.00 0.	0.	2.49E-08	0.	0.	0.	1.22E-15 0.	0.	0.	2.49E-08			
29 7.90 0.	0.	2.29E-08	0.	0.	0.	1.22E-15 0.	0.	0.	2.29E-08			
30 7.80 0.	0.	2.11E-08	0.	0.	0.	1.22E-15 0.	0.	0.	2.11E-08			
31 7.70 0.	0.	1.92E-08	0.	0.	0.	1.22E-15 0.	0.	0.	1.92E-08			
32 7.60 0.	0.	1.73E-08	0.	0.	0.	1.22E-15 0.	0.	0.	1.73E-08			
33 7.50 0.	0.	1.54E-08	0.	0.	0.	1.22E-15 0.	0.	0.	1.54E-08			
34 7.40 0.	0.	1.35E-08	0.	0.	0.	1.22E-15 0.	0.	0.	1.35E-08			
35 7.30 0.	0.	1.22E-08	0.	0.	0.	1.22E-15 0.	0.	0.	1.22E-08			
36 7.20 0.	0.	1.06E-08	0.	0.	0.	1.22E-15 0.	0.	0.	1.06E-08			
37 7.10 0.	0.	8.95E-09	0.	0.	0.	1.22E-15 0.	0.	0.	8.95E-09			
38 7.00 0.	0.	7.38E-09	0.	0.	0.	1.22E-15 0.	0.	0.	7.38E-09			
39 6.90 0.	0.	6.90 1.18E-10	0.	0.	0.	1.22E-15 0.	0.	0.	6.90 1.18E-10			
40 6.80 0.	0.	6.43 1.17E-11	0.	0.	0.	1.22E-15 0.	0.	0.	6.43 1.17E-11			
41 6.70 0.	0.	5.96 1.16E-11	0.	0.	0.	1.22E-15 0.	0.	0.	5.96 1.16E-11			
42 6.60 0.	0.	5.49 1.15E-11	0.	0.	0.	1.22E-15 0.	0.	0.	5.49 1.15E-11			
43 6.50 0.	0.	5.02 1.14E-11	0.	0.	0.	1.22E-15 0.	0.	0.	5.02 1.14E-11			
44 6.40 0.	0.	4.55 1.13E-11	0.	0.	0.	1.22E-15 0.	0.	0.	4.55 1.13E-11			
45 6.30 0.	0.	4.08 1.12E-11	0.	0.	0.	1.22E-15 0.	0.	0.	4.08 1.12E-11			
46 6.20 0.	0.	3.61 1.11E-11	0.	0.	0.	1.22E-15 0.	0.	0.	3.61 1.11E-11			
47 6.10 0.	0.	3.14 1.10E-11	0.	0.	0.	1.22E-15 0.	0.	0.	3.14 1.10E-11			
48 6.00 0.	0.	2.67 1.09E-11	0.	0.	0.	1.22E-15 0.	0.	0.	2.67 1.09E-11			
49 5.90 0.	0.	2.20 1.08E-11	0.	0.	0.	1.22E-15 0.	0.	0.	2.20 1.08E-11			
50 5.80 0.	0.	1.73 1.07E-11	0.	0.	0.	1.22E-15 0.	0.	0.	1.73 1.07E-11			
51 5.70 0.	0.	1.26 1.06E-11	0.	0.	0.	1.22E-15 0.	0.	0.	1.26 1.06E-11			

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

[illegible]

TEMPERATURE (DEGREES K) 4000.

PHOTON ENERGY E.V.	O2 S-R CONT.	M2 8-M NO. 1	NO BETA	NO GAMMA	NO 2	0- PHOTO-DET (IONS)	FREE-FREE P.E.	0 P.E.	TOTAL AIR
1 10.70 0.	0.	1.98E 00	0.	0.	0.	4.61E-04	4.60E-12	0.	1.98E 00
2 10.60 0.	0.	1.40E 00	0.	0.	0.	4.62E-04	5.00E-12	0.	1.40E 00
3 10.50 0.	0.	1.26E 00	0.	0.	0.	4.62E-04	5.14E-12	0.	1.26E 00
4 10.40 0.	0.	9.24E-01	0.	0.	0.	4.63E-04	5.39E-12	0.	9.24E-01
5 10.30 0.	0.	6.21E-01	0.	0.	0.	4.63E-04	5.45E-12	0.	6.21E-01
6 10.20 0.	0.	5.46E-01	0.	0.	0.	4.64E-04	5.61E-12	0.	5.46E-01
7 10.10 0.	0.	4.53E-01	0.	0.	0.	4.65E-04	5.76E-12	0.	4.53E-01
8 10.00 0.	0.	2.58E-01	0.	0.	0.	4.65E-04	5.76E-12	0.	2.58E-01
9 9.90 0.	0.	2.59E-01	0.	0.	0.	4.66E-04	6.14E-12	0.	2.59E-01
10 9.80 0.	0.	1.90E-01	0.	0.	0.	4.67E-04	6.33E-12	0.	1.90E-01
11 9.70 0.	0.	1.17E-01	0.	0.	0.	4.68E-04	6.33E-12	0.	1.17E-01
12 9.60 0.	0.	1.29E-01	0.	0.	0.	4.68E-04	6.74E-12	0.	1.29E-01
13 9.50 0.	1.31E 02	1.35E-02	0.	0.	0.	4.70E-04	6.74E-12	0.	1.21E 02
14 9.40 0.	1.34E 02	5.43E-02	0.	0.	0.	4.71E-04	7.18E-12	0.	1.34E 02
15 9.30 0.	1.51E 02	5.31E-02	0.	0.	0.	4.73E-04	7.42E-12	0.	1.51E 02
16 9.20 0.	1.66E 02	7.11E-02	0.	0.	0.	4.75E-04	7.68E-12	0.	1.66E 02
17 9.10 0.	2.05E 02	3.08E-02	0.	0.	0.	4.76E-04	7.92E-12	0.	2.05E 02
18 9.00 0.	2.48E 02	1.08E-02	0.	0.	0.	4.78E-04	8.19E-12	0.	2.48E 02
19 8.90 0.	3.01E 02	1.30E-02	0.	0.	0.	4.80E-04	8.47E-12	0.	2.91E 02
20 8.80 0.	3.03E 02	1.26E-02	0.	0.	0.	4.82E-04	8.70E-12	0.	3.03E 02
21 8.70 0.	2.88E 02	6.94E-03	0.	0.	0.	4.83E-04	9.07E-12	0.	2.88E 02
22 8.60 0.	2.73E 02	7.08E-03	0.	0.	0.	4.85E-04	9.35E-12	0.	2.73E 02
23 8.50 0.	2.63E 02	4.08E-03	0.	0.	0.	4.87E-04	9.73E-12	0.	2.63E 02
24 8.40 0.	2.49E 02	3.79E-03	0.	0.	0.	4.89E-04	1.01E-11	0.	2.58E 02
25 8.30 0.	2.38E 02	2.21E-03	0.	0.	0.	4.92E-04	1.04E-11	0.	2.38E 02
26 8.20 0.	2.24E 02	1.99E-03	0.	0.	0.	4.94E-04	1.08E-11	0.	2.24E 02
27 8.10 0.	2.13E 02	1.23E-03	0.	0.	0.	4.97E-04	1.13E-11	0.	2.13E 02
28 8.00 0.	2.08E 02	1.87E-03	0.	0.	0.	4.99E-04	1.17E-11	0.	2.08E 02
29 7.90 0.	1.87E 02	6.74E-04	0.	0.	0.	5.02E-04	1.21E-11	0.	1.87E 02
30 7.80 0.	1.75E 02	5.98E-04	0.	0.	0.	5.05E-04	1.26E-11	0.	1.75E 02
31 7.70 0.	1.67E 02	3.91E-04	0.	0.	0.	5.07E-04	1.31E-11	0.	1.67E 02
32 7.60 0.	1.49E 02	3.08E-04	0.	0.	0.	5.10E-04	1.36E-11	0.	1.49E 02
33 7.50 0.	1.36E 02	2.15E-04	0.	0.	0.	5.12E-04	1.42E-11	0.	1.36E 02
34 7.40 0.	1.23E 02	1.52E-04	0.	0.	0.	5.15E-04	1.48E-11	0.	1.23E 02
35 7.30 0.	1.10E 02	1.18E-04	0.	0.	0.	5.18E-04	1.54E-11	0.	1.10E 02
36 7.20 0.	9.84E 01	7.94E-05	0.	0.	0.	5.21E-04	1.60E-11	0.	9.84E 01
37 7.10 0.	8.67E 01	5.94E-05	0.	0.	0.	5.25E-04	1.67E-11	0.	8.68E 01
38 7.00 0.	6.33E-01	4.26E-05	0.	0.	0.	5.29E-04	1.75E-11	0.	6.33E-01
39 6.90 0.	5.98E-01	3.01E-05	0.	0.	0.	5.34E-04	1.82E-11	0.	5.98E-01
40 6.80 0.	5.14E-01	2.21E-05	0.	0.	0.	5.38E-04	1.90E-11	0.	5.14E-01
41 6.70 0.	3.17E-01	1.42E-05	0.	0.	0.	5.42E-04	1.99E-11	0.	3.17E-01
42 6.60 0.	1.67E-01	1.08E-05	0.	0.	0.	5.46E-04	2.08E-11	0.	1.67E-01
43 6.50 0.	8.07E-02	5.87E-06	0.	0.	0.	5.51E-04	2.18E-11	0.	8.08E-02
44 6.40 0.	1.23E-01	2.98E-06	0.	0.	0.	5.55E-04	2.29E-11	0.	1.23E-01
45 6.30 0.	2.59E-01	8.04E-07	0.	0.	0.	5.59E-04	2.40E-11	0.	2.59E-01
46 6.20 0.	5.99E-01	2.86E-07	0.	0.	0.	5.63E-04	2.51E-11	0.	5.99E-01
47 6.10 0.	1.94E 00	8.47E-08	0.	0.	0.	5.68E-04	2.64E-11	0.	1.94E 00
48 6.00 0.	4.22E 00	1.56E-08	0.	0.	0.	5.72E-04	2.78E-11	0.	4.22E 00
49 5.90 0.	5.22E 00	1.07E-09	0.	0.	0.	5.77E-04	2.92E-11	0.	5.22E 00
50 5.80 0.	6.01E 00	2.43E-11	0.	0.	0.	5.82E-04	3.07E-11	0.	6.01E 00
51 5.70 0.	5.95E 00	0.	0.	0.	0.	5.89E-04	3.24E-11	0.	5.95E 00

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TEMPERATURE (DEGREES K) 4000. DENSITY (GM/CC) 1.293E+02 (1.0E 01 NORMAL)

PHOTON OF S-R ENERGY BANDS	N2 1ST POS.	N2 2ND POS.	N2+ 1ST NEG.	NO BETA	NO GAMMA	NO VIB-ROT	NO 2	O- PHOTO-DET	FREE-FREE (15ONS)	N P.E.	O P.E.	TOTAL AIR
52	5.60	6.576	00 0.	0.	2.81E-01	3.19E 00 0.	0.	4.92E-04	3.41E-11	0.	0.	1.00E 01
53	5.50	5.94E	00 0.	0.	4.03E-01	4.71E 00 0.	0.	4.92E-04	3.41E-11	0.	0.	1.11E 01
54	5.40	5.30E	00 0.	0.	2.88E-01	1.13E 00 0.	0.	4.97E-04	3.08E-11	0.	0.	6.72E 00
55	5.30	4.44E	00 0.	0.	2.88E-01	1.39E 00 0.	0.	5.01E-04	4.03E-11	0.	0.	8.11E 00
56	5.20	2.36E	00 0.	0.	2.88E-01	1.11E 00 0.	0.	5.04E-04	4.27E-11	0.	0.	3.74E 00
57	5.10	2.01E	00 0.	0.	2.23E-01	1.46E 00 0.	0.	1.33E-02	4.52E-11	0.	0.	3.71E 00
58	5.00	1.33E	00 0.	0.	1.62E-01	1.33E 00 0.	0.	1.55E-02	5.12E-11	0.	0.	2.44E 00
59	4.90	1.10E	00 0.	0.	1.59E-01	7.44E-01	0.	1.62E-02	5.17E-11	0.	0.	2.02E 00
60	4.80	1.12E	00 0.	0.	1.48E-01	8.04E-01	0.	1.37E-02	5.21E-11	0.	0.	2.09E 00
61	4.70	1.04E	00 0.	0.	1.38E-01	3.75E-01	0.	1.58E-02	5.59E-11	0.	0.	1.56E 00
62	4.60	1.06E	00 0.	0.	1.19E-01	4.52E-01	0.	1.59E-02	5.29E-11	0.	0.	1.15E 00
63	4.50	8.85E-02	0.	7.16E-08	8.97E-02	1.87E-01	0.	1.40E-02	5.34E-11	0.	0.	1.17E 00
64	4.40	7.40E-01	0.	5.18E-07	7.47E-02	1.98E-01	0.	1.41E-02	5.35E-11	0.	0.	1.04E 00
65	4.30	5.56E-01	0.	4.88E-07	7.75E-02	1.64E-02	0.	1.33E-02	5.32E-11	0.	0.	6.57E-01
66	4.20	3.43E-01	0.	4.53E-06	7.30E-02	0.	0.	1.35E-02	5.40E-11	0.	0.	5.75E-01
67	4.10	3.43E-01	0.	4.29E-07	7.30E-02	0.	0.	1.47E-02	5.49E-11	0.	0.	4.17E-01
68	4.00	2.59E-01	0.	5.75E-06	3.22E-02	1.06E-02	0.	1.48E-02	5.51E-11	0.	0.	3.15E-01
69	3.90	1.64E-01	0.	3.47E-06	3.22E-02	4.69E-03	0.	1.70E-02	5.49E-11	0.	0.	2.12E-01
70	3.80	1.64E-01	0.	2.05E-06	1.05E-10	2.17E-02	0.	1.72E-02	5.48E-11	0.	0.	2.04E-01
71	3.70	1.04E-01	0.	6.88E-06	3.07E-11	1.15E-02	0.	1.74E-02	5.38E-11	0.	0.	1.33E-01
72	3.60	7.78E-02	0.	1.08E-06	7.16E-11	1.38E-02	0.	1.76E-02	5.04E-11	0.	0.	1.09E-01
73	3.50	5.88E-02	0.	3.49E-06	9.26E-10	6.59E-03	0.	1.79E-02	4.81E-11	0.	0.	8.35E-02
74	3.40	4.04E-02	0.	5.07E-07	5.32E-12	7.29E-03	0.	1.81E-02	2.46E-11	0.	0.	6.98E-02
75	3.30	2.74E-02	0.	1.13E-06	1.37E-10	3.81E-03	0.	1.82E-02	2.46E-11	0.	0.	4.99E-02
76	3.20	1.83E-02	0.	2.98E-07	1.30E-09	3.65E-03	0.	1.84E-02	2.37E-11	0.	0.	4.04E-02
77	3.10	1.37E-02	0.	2.98E-07	1.01E-11	2.45E-03	0.	1.84E-02	2.37E-11	0.	0.	4.04E-02
78	3.00	9.39E-03	0.	3.70E-08	1.48E-10	1.81E-03	0.	1.81E-02	2.48E-11	0.	0.	2.96E-02
79	2.90	5.98E-03	0.	5.97E-08	2.77E-10	8.67E-04	0.	1.79E-02	2.48E-11	0.	0.	2.96E-02
80	2.80	4.08E-03	0.	1.09E-08	1.07E-11	3.90E-04	0.	1.76E-02	2.49E-11	0.	0.	2.30E-02</

TEMPERATURE (DEGREES K) 400. DENSITY (GM/CC) 1.293E+03 (10.0E-01 NORMAL)

PHOTON ENERGY E.V.	PHOTON NO. 2	S-R CONT.	S-R BANDS	NO BETA	NO GAMMA	O- PHOTO-DET (IONS)	FREE-FREE (IONS)	H P.E.	O P.E.	TOTAL AIR
1 10.70	0.	2.00E-01	0.	0.	0.	4.55E-05	4.24E-13	0.	0.	2.00E-01
2 10.60	0.	1.41E-01	0.	0.	0.	4.55E-05	4.37E-13	0.	0.	1.41E-01
3 10.50	0.	1.21E-01	0.	0.	0.	4.56E-05	4.40E-13	0.	0.	1.21E-01
4 10.40	0.	9.33E-02	0.	0.	0.	4.57E-05	4.42E-13	0.	0.	9.33E-02
5 10.30	0.	6.26E-02	0.	0.	0.	4.57E-05	4.76E-13	0.	0.	6.26E-02
6 10.20	0.	5.49E-02	0.	0.	0.	4.58E-05	4.90E-13	0.	0.	5.49E-02
7 10.10	0.	4.30E-02	0.	0.	0.	4.58E-05	5.85E-13	0.	0.	4.30E-02
8 10.00	0.	2.70E-02	0.	0.	0.	4.59E-05	5.21E-13	0.	0.	2.70E-02
9 9.90	0.	2.61E-02	0.	0.	0.	4.60E-05	5.37E-13	0.	0.	2.61E-02
10 9.80	0.	1.91E-02	0.	0.	0.	4.61E-05	5.93E-13	0.	0.	1.91E-02
11 9.70	0.	1.10E-02	0.	0.	0.	4.61E-05	5.71E-13	0.	0.	1.10E-02
12 9.60	0.	1.24E-02	0.	0.	0.	4.62E-05	5.09E-13	0.	0.	1.24E-02
13 9.50	0.	9.15E-03	0.	0.	0.	4.63E-05	5.09E-13	0.	0.	9.15E-03
14 9.40	0.	1.03E-01	0.	0.	0.	4.63E-05	6.20E-13	0.	0.	1.03E-01
15 9.30	0.	1.15E-01	0.	0.	0.	4.67E-05	6.47E-13	0.	0.	1.15E-01
16 9.20	0.	1.24E-01	0.	0.	0.	4.68E-05	6.70E-13	0.	0.	1.24E-01
17 9.10	0.	1.56E-01	0.	0.	0.	4.70E-05	6.92E-13	0.	0.	1.56E-01
18 9.00	0.	1.66E-01	0.	0.	0.	4.72E-05	7.16E-13	0.	0.	1.66E-01
19 8.90	0.	2.21E-01	0.	0.	0.	4.73E-05	7.40E-13	0.	0.	2.21E-01
20 8.80	0.	2.30E-01	0.	0.	0.	4.75E-05	7.66E-13	0.	0.	2.30E-01
21 8.70	0.	2.19E-01	0.	0.	0.	4.77E-05	7.92E-13	0.	0.	2.19E-01
22 8.60	0.	2.90E-01	0.	0.	0.	4.78E-05	8.21E-13	0.	0.	2.90E-01
23 8.50	0.	1.90E-01	0.	0.	0.	4.80E-05	8.50E-13	0.	0.	1.90E-01
24 8.40	0.	1.90E-01	0.	0.	0.	4.83E-05	8.81E-13	0.	0.	1.90E-01
25 8.30	0.	1.81E-01	0.	0.	0.	4.85E-05	9.13E-13	0.	0.	1.81E-01
26 8.20	0.	1.71E-01	0.	0.	0.	4.88E-05	9.47E-13	0.	0.	1.71E-01
27 8.10	0.	1.62E-01	0.	0.	0.	4.90E-05	9.83E-13	0.	0.	1.62E-01
28 8.00	0.	1.52E-01	0.	0.	0.	4.93E-05	1.02E-12	0.	0.	1.52E-01
29 7.90	0.	1.42E-01	0.	0.	0.	4.95E-05	1.06E-12	0.	0.	1.42E-01
30 7.80	0.	1.32E-01	0.	0.	0.	4.98E-05	1.10E-12	0.	0.	1.32E-01
31 7.70	0.	1.23E-01	0.	0.	0.	5.00E-05	1.14E-12	0.	0.	1.23E-01
32 7.60	0.	1.13E-01	0.	0.	0.	5.03E-05	1.19E-12	0.	0.	1.13E-01
33 7.50	0.	1.03E-01	0.	0.	0.	5.05E-05	1.24E-12	0.	0.	1.03E-01
34 7.40	0.	9.32E-02	0.	0.	0.	5.08E-05	1.29E-12	0.	0.	9.32E-02
35 7.30	0.	8.37E-02	0.	0.	0.	5.11E-05	1.34E-12	0.	0.	8.37E-02
36 7.20	0.	7.47E-02	0.	0.	0.	5.14E-05	1.40E-12	0.	0.	7.47E-02
37 7.10	0.	6.56E-02	0.	0.	0.	5.16E-05	1.46E-12	0.	0.	6.56E-02
38 7.00	0.	5.62E-02	0.	0.	0.	5.19E-05	1.52E-12	0.	0.	5.62E-02
39 6.90	0.	4.69E-02	0.	0.	0.	5.22E-05	1.59E-12	0.	0.	4.69E-02
40 6.80	0.	3.76E-02	0.	0.	0.	5.24E-05	1.66E-12	0.	0.	3.76E-02
41 6.70	0.	2.83E-02	0.	0.	0.	5.27E-05	1.74E-12	0.	0.	2.83E-02
42 6.60	0.	1.90E-02	0.	0.	0.	5.30E-05	1.82E-12	0.	0.	1.90E-02
43 6.50	0.	9.07E-03	0.	0.	0.	5.33E-05	1.90E-12	0.	0.	9.07E-03
44 6.40	0.	8.14E-03	0.	0.	0.	5.36E-05	2.00E-12	0.	0.	8.14E-03
45 6.30	0.	7.21E-03	0.	0.	0.	5.39E-05	2.10E-12	0.	0.	7.21E-03
46 6.20	0.	6.28E-03	0.	0.	0.	5.42E-05	2.20E-12	0.	0.	6.28E-03
47 6.10	0.	5.35E-03	0.	0.	0.	5.45E-05	2.30E-12	0.	0.	5.35E-03
48 6.00	0.	4.42E-03	0.	0.	0.	5.48E-05	2.40E-12	0.	0.	4.42E-03
49 5.90	0.	3.49E-03	0.	0.	0.	5.51E-05	2.50E-12	0.	0.	3.49E-03
50 5.80	0.	2.56E-03	0.	0.	0.	5.54E-05	2.60E-12	0.	0.	2.56E-03
51 5.70	0.	1.63E-03	0.	0.	0.	5.57E-05	2.70E-12	0.	0.	1.63E-03
52 5.60	0.	7.00E-04	0.	0.	0.	5.60E-05	2.80E-12	0.	0.	7.00E-04

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R ENERGY BANDS		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		10.0E-02 NORMAL		0		P.F.		TOTAL AIR	
1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	BETA	NO	GAMMA	VIB-RAT	NO	2	PHOTO-DET (TOWS)	N	P.F.	0
52	5.60	2.0E-02	0.	1.07E-03	1.89E-02	0.	0.	0.	2.05E-04	2.03E-13	0.	0.	4.32E-02
53	5.50	2.0E-02	0.	2.39E-03	2.0E-02	0.	0.	0.	2.0E-04	2.1E-13	0.	0.	5.0E-02
54	5.40	1.0E-02	0.	1.0E-03	0.75E-03	0.	0.	0.	2.0E-04	2.2E-13	0.	0.	2.0E-02
55	5.30	1.0E-02	0.	1.71E-03	2.01E-02	0.	0.	0.	2.0E-04	2.3E-13	0.	0.	3.71E-02
56	5.20	6.3E-03	0.	1.0E-03	6.0E-03	0.	0.	0.	2.0E-04	2.4E-13	0.	0.	1.6E-02
57	5.10	6.3E-03	0.	1.32E-03	8.6E-03	0.	0.	0.	2.0E-04	2.5E-13	0.	0.	1.6E-02
58	5.00	4.8E-03	0.	9.3E-04	7.9E-03	0.	0.	0.	2.0E-04	2.6E-13	0.	0.	1.3E-02
59	4.90	3.7E-03	0.	9.2E-04	4.4E-03	0.	0.	0.	2.0E-04	2.7E-13	0.	0.	9.1E-03
60	4.80	3.0E-03	0.	9.0E-04	4.7E-03	0.	0.	0.	2.0E-04	2.8E-13	0.	0.	9.5E-03
61	4.70	3.0E-03	0.	7.7E-04	2.2E-03	0.	0.	0.	2.0E-04	2.9E-13	0.	0.	6.0E-03
62	4.60	3.0E-03	0.	7.0E-04	2.6E-03	0.	0.	0.	2.0E-04	3.0E-13	0.	0.	7.0E-03
63	4.50	3.0E-03	0.	5.0E-04	1.1E-03	0.	0.	0.	2.0E-04	3.1E-13	0.	0.	4.6E-03
64	4.40	2.4E-03	0.	4.4E-04	1.1E-03	0.	0.	0.	2.0E-04	3.2E-13	0.	0.	4.1E-03
65	4.30	1.0E-03	0.	3.9E-04	3.9E-04	0.	0.	0.	2.0E-04	3.3E-13	0.	0.	2.6E-03
66	4.20	1.0E-03	0.	3.0E-04	4.9E-04	0.	0.	0.	2.0E-04	3.4E-13	0.	0.	2.2E-03
67	4.10	1.0E-03	0.	2.3E-04	1.0E-04	0.	0.	0.	2.0E-04	3.5E-13	0.	0.	1.5E-03
68	4.00	8.7E-04	0.	2.0E-04	6.2E-05	0.	0.	0.	2.0E-04	3.6E-13	0.	0.	1.1E-03
69	3.90	5.7E-04	0.	1.2E-04	3.9E-05	0.	0.	0.	2.0E-04	3.7E-13	0.	0.	7.4E-04
70	3.80	5.0E-04	0.	1.0E-04	1.0E-05	0.	0.	0.	2.0E-04	3.8E-13	0.	0.	7.0E-04
71	3.70	3.6E-04	0.	9.7E-05	7.0E-05	0.	0.	0.	2.0E-04	3.9E-13	0.	0.	7.0E-04
72	3.60	2.7E-04	0.	8.8E-05	7.4E-05	0.	0.	0.	2.0E-04	4.0E-13	0.	0.	7.0E-04
73	3.50	2.0E-04	0.	8.0E-05	6.3E-05	0.	0.	0.	2.0E-04	4.1E-13	0.	0.	7.0E-04
74	3.40	1.0E-04	0.	6.0E-05	6.0E-05	0.	0.	0.	2.0E-04	4.2E-13	0.	0.	7.0E-04
75	3.30	9.0E-05	0.	5.0E-05	5.0E-05	0.	0.	0.	2.0E-04	4.3E-13	0.	0.	7.0E-04
76	3.20	6.0E-05	0.	4.0E-05	4.0E-05	0.	0.	0.	2.0E-04	4.4E-13	0.	0.	7.0E-04
77	3.10	4.0E-05	0.	3.0E-05	3.0E-05	0.	0.	0.	2.0E-04	4.5E-13	0.	0.	7.0E-04
78	3.00	3.0E-05	0.	2.0E-05	2.0E-05	0.	0.	0.	2.0E-04	4.6E-13	0.	0.	7.0E-04
79	2.90	2.0E-05	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	4.7E-13	0.	0.	7.0E-04
80	2.80	1.0E-05	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	4.8E-13	0.	0.	7.0E-04
81	2.70	7.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	4.9E-13	0.	0.	7.0E-04
82	2.60	5.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	5.0E-13	0.	0.	7.0E-04
83	2.50	3.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	5.1E-13	0.	0.	7.0E-04
84	2.40	2.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	5.2E-13	0.	0.	7.0E-04
85	2.30	1.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	5.3E-13	0.	0.	7.0E-04
86	2.20	0.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	5.4E-13	0.	0.	7.0E-04
87	2.10	0.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	5.5E-13	0.	0.	7.0E-04
88	2.00	0.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	5.6E-13	0.	0.	7.0E-04
89	1.90	0.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	5.7E-13	0.	0.	7.0E-04
90	1.80	0.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	5.8E-13	0.	0.	7.0E-04
91	1.70	0.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	5.9E-13	0.	0.	7.0E-04
92	1.60	0.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	6.0E-13	0.	0.	7.0E-04
93	1.50	0.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	6.1E-13	0.	0.	7.0E-04
94	1.40	0.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	6.2E-13	0.	0.	7.0E-04
95	1.30	0.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	6.3E-13	0.	0.	7.0E-04
96	1.20	0.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	6.4E-13	0.	0.	7.0E-04
97	1.10	0.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	6.5E-13	0.	0.	7.0E-04
98	1.00	0.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	6.6E-13	0.	0.	7.0E-04
99	0.90	0.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	6.7E-13	0.	0.	7.0E-04
100	0.80	0.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	6.8E-13	0.	0.	7.0E-04
101	0.70	0.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	6.9E-13	0.	0.	7.0E-04
102	0.60	0.0E-06	0.	1.0E-05	1.0E-05	0.	0.	0.	2.0E-04	7.0E-13	0.	0.	7.0E-04

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 4890. DENSITY (GM/CC) 1.2932-05 (10.0E-03 NORMAL)

PHOTON Q2 S-R ENERGY BANDS E.V.	Q2 S-R CONT.	Q2 S-R NO. 1	BETA	NO BIMMA	WD 2	PHOTO-DET (IONS)	FREE-FREE P.E.	N P.E.	O P.E.	TOTAL AIR
1 10.70 0.	0.	2.07E-03	0.	0.	0.	0.02E-08	1.29E-15	0.	0.	2.07E-03
2 1.46E-03	0.	1.46E-03	0.	0.	0.	0.03E-08	1.33E-15	0.	0.	1.46E-03
3 1.29E-03	0.	1.29E-03	0.	0.	0.	0.04E-08	1.37E-15	0.	0.	1.29E-03
4 1.07E-04	0.	6.47E-04	0.	0.	0.	0.05E-08	1.41E-15	0.	0.	6.47E-04
5 6.49E-04	0.	6.49E-04	0.	0.	0.	0.06E-08	1.45E-15	0.	0.	6.49E-04
6 1.0420 0.	0.	5.69E-04	0.	0.	0.	0.07E-08	1.49E-15	0.	0.	5.69E-04
7 10.10 0.	0.	4.55E-04	0.	0.	0.	0.08E-08	1.54E-15	0.	0.	4.55E-04
8 10.00 0.	0.	2.88E-04	0.	0.	0.	0.09E-08	1.58E-15	0.	0.	2.88E-04
9 9.90 0.	0.	2.78E-04	0.	0.	0.	0.10E-08	1.63E-15	0.	0.	2.78E-04
10 9.80 0.	0.	1.98E-04	0.	0.	0.	0.12E-08	1.68E-15	0.	0.	1.98E-04
11 9.70 0.	0.	1.22E-04	0.	0.	0.	0.14E-08	1.74E-15	0.	0.	1.22E-04
12 9.60 0.	0.	1.31E-04	0.	0.	0.	0.15E-08	1.79E-15	0.	0.	1.31E-04
13 9.50 0.	0.22E-03	7.69E-05	0.	0.	0.	0.17E-08	1.85E-15	0.	0.	7.69E-05
14 9.40 0.	9.29E-03	5.68E-05	0.	0.	0.	0.20E-08	1.91E-15	0.	0.	5.68E-05
15 9.30 0.	1.03E-02	5.55E-05	0.	0.	0.	0.23E-08	1.97E-15	0.	0.	1.03E-02
16 9.20 0.	1.13E-02	2.02E-05	0.	0.	0.	0.26E-08	2.04E-15	0.	0.	1.13E-02
17 9.10 0.	1.40E-02	3.14E-05	0.	0.	0.	0.29E-08	2.11E-15	0.	0.	1.40E-02
18 9.00 0.	1.69E-02	1.97E-05	0.	0.	0.	0.32E-08	2.18E-15	0.	0.	1.69E-02
19 8.90 0.	1.99E-02	1.45E-05	0.	0.	0.	0.35E-08	2.25E-15	0.	0.	1.99E-02
20 8.80 0.	2.06E-02	1.29E-05	0.	0.	0.	0.38E-08	2.33E-15	0.	0.	2.06E-02
21 8.70 0.	1.97E-02	7.29E-06	0.	0.	0.	0.41E-08	2.41E-15	0.	0.	1.97E-02
22 8.60 0.	1.87E-02	7.40E-06	0.	0.	0.	0.44E-08	2.50E-15	0.	0.	1.87E-02
23 8.50 0.	1.78E-02	4.26E-06	0.	0.	0.	0.47E-08	2.58E-15	0.	0.	1.78E-02
24 8.40 0.	1.70E-02	3.94E-06	0.	0.	0.	0.51E-08	2.68E-15	0.	0.	1.70E-02
25 8.30 0.	1.62E-02	2.31E-06	0.	0.	0.	0.55E-08	2.78E-15	0.	0.	1.62E-02
26 8.20 0.	1.54E-02	2.08E-06	0.	0.	0.	0.60E-08	2.88E-15	0.	0.	1.54E-02
27 8.10 0.	1.45E-02	1.29E-06	0.	0.	0.	0.64E-08	2.99E-15	0.	0.	1.45E-02
28 8.00 0.	1.36E-02	1.12E-06	0.	0.	0.	0.69E-08	3.10E-15	0.	0.	1.36E-02
29 7.90 0.	1.28E-02	7.84E-07	0.	0.	0.	0.73E-08	3.22E-15	0.	0.	1.28E-02
30 7.80 0.	1.19E-02	6.29E-07	0.	0.	0.	0.78E-08	3.35E-15	0.	0.	1.19E-02
31 7.70 0.	1.10E-02	4.09E-07	0.	0.	0.	0.82E-08	3.48E-15	0.	0.	1.10E-02
32 7.60 0.	1.01E-02	3.14E-07	0.	3.14E-08	0.	0.87E-08	3.62E-15	0.	0.	1.01E-02
33 7.50 0.	9.24E-03	2.22E-07	0.	7.44E-07	0.	0.91E-08	3.77E-15	0.	0.	9.24E-03
34 7.40 0.	8.37E-03	1.59E-07	0.	1.40E-06	0.	0.96E-08	3.93E-15	0.	0.	8.37E-03
35 7.30 0.	7.51E-03	1.17E-07	0.	8.41E-06	0.	0.01E-08	4.09E-15	0.	0.	7.51E-03
36 7.20 0.	6.71E-03	8.21E-08	0.	5.01E-05	0.	0.06E-08	4.26E-15	0.	0.	6.71E-03
37 7.10 0.	5.91E-03	6.21E-08	0.	3.95E-05	0.	0.13E-08	4.45E-15	0.	0.	5.91E-03
38 7.00 2.88E-05	0.	4.35E-08	0.	2.90E-04	0.	0.21E-08	4.64E-15	0.	0.	4.35E-08
39 6.90 4.73E-05	0.	3.15E-08	0.	2.10E-04	0.	0.28E-08	4.85E-15	0.	0.	3.15E-08
40 6.80 3.58E-05	0.	2.31E-08	0.	3.27E-04	0.	0.36E-08	5.06E-15	0.	0.	2.31E-08
41 6.70 2.15E-05	0.	1.56E-08	0.	1.01E-03	0.	0.43E-08	5.30E-15	0.	0.	1.56E-08
42 6.60 1.13E-05	0.	1.07E-08	0.	3.65E-04	0.	0.51E-08	5.54E-15	0.	0.	1.07E-08
43 6.50 5.48E-06	0.	6.11E-09	0.	6.06E-04	0.	0.58E-08	5.80E-15	0.	0.	6.11E-09
44 6.40 8.48E-06	0.	2.62E-09	2.01E-05	1.65E-03	0.	0.65E-08	6.08E-15	0.	0.	2.62E-09
45 6.30 1.62E-05	0.	9.24E-10	6.91E-05	5.23E-04	0.	0.73E-08	6.37E-15	0.	0.	9.24E-10
46 6.20 4.04E-05	0.	3.01E-10	7.68E-05	6.43E-04	0.	0.80E-08	6.69E-15	0.	0.	3.01E-10
47 6.10 1.32E-04	0.	8.86E-11	1.79E-04	3.35E-03	0.	0.88E-08	7.02E-15	0.	0.	8.86E-11
48 6.00 2.88E-04	0.	1.66E-11	1.06E-04	3.59E-04	0.	0.95E-08	7.38E-15	0.	0.	1.66E-11
49 5.90 3.68E-04	0.	1.15E-12	1.41E-04	4.80E-04	0.	0.95E-08	7.76E-15	0.	0.	1.15E-12
50 5.80 4.48E-04	0.	2.53E-14	1.70E-04	5.45E-04	0.	9.05E-08	8.17E-15	0.	0.	2.53E-14
51 5.70 4.04E-04	0.	0.	1.48E-04	2.65E-04	0.	9.21E-08	8.61E-15	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R ENERGY BANDS	N2 1ST POS.	N2 2ND POS.	N2 2ND POS.	TEMPERATURE (DEGREES K)	4000.	DENSITY (GM/CC)	1.293E-05	(10.0E-03 NORMAL)	O- FREE-FREE M	O- FREE-FREE P.E.	O- FREE-FREE M	O- FREE-FREE P.E.	TOTAL AIR	
52	5.60	4.46E-04	0.	0.	0.	7.50E-05	0.49E-04	0.	0.	0.54E-08	9.09E-15	0.	1.37E-03	
53	5.50	4.04E-04	0.	0.	0.	7.07E-04	1.25E-03	0.	0.	0.61E-08	9.58E-15	0.	1.74E-03	
54	5.40	3.59E-04	0.	0.	0.	7.55E-05	3.02E-04	0.	0.	0.65E-08	1.01E-14	0.	7.36E-04	
55	5.30	3.01E-04	0.	0.	0.	7.67E-05	9.02E-04	0.	0.	0.71E-08	1.07E-14	0.	1.28E-03	
56	5.20	2.68E-04	0.	0.	0.	7.08E-05	2.96E-04	0.	0.	0.76E-08	1.13E-14	0.	5.27E-04	
57	5.10	1.37E-04	0.	0.	0.	5.93E-05	3.04E-04	0.	0.	0.84E-08	1.20E-14	0.	5.85E-04	
58	5.00	0.93E-05	0.	0.	0.	4.32E-05	3.94E-04	0.	0.	3.39E-08	0.91E-08	1.20E-14	0.	4.80E-04
59	4.90	7.47E-05	0.	0.	0.	4.16E-05	3.94E-04	0.	0.	3.42E-08	7.97E-08	1.35E-14	0.	3.14E-04
60	4.80	7.56E-05	0.	0.	0.	4.38E-05	2.14E-04	0.	0.	3.45E-08	9.06E-08	1.44E-14	0.	3.32E-04
61	4.70	7.08E-05	0.	0.	0.	3.17E-05	1.20E-04	0.	0.	3.47E-08	9.13E-08	1.54E-14	0.	2.24E-04
62	4.60	7.18E-05	0.	0.	0.	3.17E-05	1.20E-04	0.	0.	3.49E-08	9.21E-08	1.64E-14	0.	1.53E-04
63	4.50	6.80E-05	0.	0.	0.	2.28E-05	4.96E-05	0.	0.	3.51E-08	9.28E-08	1.75E-14	0.	1.23E-04
64	4.40	5.02E-05	0.	0.	0.	1.99E-05	5.26E-05	0.	0.	3.54E-08	9.36E-08	1.87E-14	0.	1.23E-04
65	4.30	3.77E-05	0.	0.	0.	1.32E-05	1.77E-05	0.	0.	3.58E-08	9.43E-08	2.01E-14	0.	7.80E-05
66	4.20	2.94E-05	0.	0.	0.	1.39E-05	1.95E-05	0.	0.	3.62E-08	9.51E-08	2.16E-14	0.	6.29E-05
67	4.10	2.33E-05	0.	0.	0.	1.05E-05	4.77E-05	0.	0.	3.65E-08	9.58E-08	2.32E-14	0.	5.87E-05
68	4.00	1.73E-05	0.	0.	0.	8.99E-06	2.82E-05	0.	0.	3.72E-08	9.68E-08	2.48E-14	0.	2.96E-05
69	3.90	1.13E-05	0.	0.	0.	5.71E-06	1.78E-05	0.	0.	3.75E-08	9.76E-08	2.65E-14	0.	1.89E-05
70	3.80	7.03E-06	0.	0.	0.	3.63E-06	2.19E-13	5.71E-06	1.78E-05	3.77E-08	9.84E-08	2.81E-14	0.	1.71E-05
71	3.70	7.03E-06	0.	0.	0.	2.14E-06	8.92E-12	5.78E-06	0.	3.82E-08	9.91E-08	2.91E-14	0.	1.63E-05
72	3.60	5.24E-06	0.	0.	0.	7.11E-06	1.52E-12	3.35E-06	0.	3.87E-08	9.98E-08	3.02E-14	0.	0.94E-06
73	3.50	3.98E-06	0.	0.	0.	1.08E-06	3.54E-12	3.59E-06	0.	3.92E-08	1.00E-08	3.12E-14	0.	0.94E-06
74	3.40	2.73E-06	0.	0.	0.	3.69E-06	4.54E-11	1.75E-06	0.	3.97E-08	1.01E-08	3.22E-14	0.	4.75E-06
75	3.30	1.67E-06	0.	0.	0.	6.14E-10	2.84E-13	1.94E-06	0.	4.00E-08	1.02E-08	3.32E-14	0.	2.97E-06
76	3.20	1.24E-06	0.	0.	0.	1.10E-09	6.44E-11	1.01E-06	0.	4.03E-08	1.03E-08	3.42E-14	0.	2.30E-06
77	3.10	9.28E-07	0.	0.	0.	2.80E-10	6.44E-11	9.77E-07	0.	4.03E-08	1.03E-08	3.42E-14	0.	1.67E-06
78	3.00	6.37E-07	0.	0.	0.	3.11E-10	5.01E-13	6.35E-07	0.	4.03E-08	1.03E-08	3.42E-14	0.	1.21E-06
79	2.90	4.00E-07	0.	0.	0.	9.09E-11	7.34E-12	4.03E-07	0.	3.98E-08	1.03E-08	3.42E-14	0.	7.17E-07
80	2.80	3.00E-07	0.	0.	0.	6.24E-11	1.12E-11	2.31E-07	0.	3.95E-08	1.03E-08	3.42E-14	0.	5.18E-07
81	2.70	1.43E-07	0.	0.	0.	1.90E-11	5.27E-13	9.35E-08	0.	3.86E-08	1.03E-08	3.42E-14	0.	2.55E-07
82	2.60	3.89E-08	0.	0.	0.	1.02E-11	3.54E-12	2.71E-08	0.	3.78E-08	1.03E-08	3.42E-14	0.	1.79E-07
83	2.50	2.14E-09	0.	0.	0.	4.24E-12	5.51E-13	6.75E-09	0.	3.69E-08	1.03E-08	3.42E-14	0.	8.55E-08
84	2.40	0.	0.	0.	0.	6.91E-13	9.49E-14	1.12E-09	0.	3.54E-08	1.03E-08	3.42E-14	0.	8.10E-08
85	2.30	0.	0.	0.	0.	2.71E-13	8.94E-11	0.	0.	3.39E-08	1.03E-08	3.42E-14	0.	8.03E-08
86	2.20	0.	0.	0.	0.	0.	0.	0.	0.	3.18E-08	1.03E-08	3.42E-14	0.	7.63E-08
87	2.10	0.	0.	0.	0.	0.	0.	0.	0.	2.95E-08	1.03E-08	3.42E-14	0.	6.38E-08
88	2.00	0.	0.	0.	0.	0.	0.	0.	0.	2.72E-08	1.03E-08	3.42E-14	0.	7.72E-08
89	1.90	0.	0.	0.	0.	0.	0.	0.	0.	2.43E-08	1.03E-08	3.42E-14	0.	1.16E-07
90	1.80	0.	0.	0.	0.	0.	0.	0.	0.	2.17E-08	1.03E-08	3.42E-14	0.	1.22E-07
91	1.70	0.	0.	0.	0.	0.	0.	0.	0.	1.80E-08	1.03E-08	3.42E-14	0.	1.09E-07
92	1.60	0.	0.	0.	0.	0.	0.	0.	0.	1.46E-08	1.03E-08	3.42E-14	0.	9.67E-08
93	1.50	0.	0.	0.	0.	0.	0.	0.	0.	1.15E-08	1.03E-08	3.42E-14	0.	7.11E-08
94	1.40	0.	0.	0.	0.	0.	0.	0.	0.	8.8E-09	1.03E-08	3.42E-14	0.	4.78E-08
95	1.30	0.	0.	0.	0.	0.	0.	0.	0.	6.56E-09	1.03E-08	3.42E-14	0.	8.12E-08
96	1.20	0.	0.	0.	0.	0.	0.	0.	0.	4.36E-09	1.03E-08	3.42E-14	0.	6.75E-08
97	1.10	0.	0.	0.	0.	0.	0.	0.	0.	2.76E-09	1.03E-08	3.42E-14	0.	3.59E-08
98	1.00	0.	0.	0.	0.	0.	0.	0.	0.	1.61E-09	1.03E-08	3.42E-14	0.	4.82E-08
99	0.90	0.	0.	0.	0.	0.	0.	0.	0.	4.21E-09	1.03E-08	3.42E-14	0.	6.76E-08
100	0.80	0.	0.	0.	0.	0.	0.	0.	0.	2.01E-09	1.03E-08	3.42E-14	0.	1.89E-07
101	0.70	0.	0.	0.	0.	0.	0.	0.	0.	8.61E-09	1.03E-08	3.42E-14	0.	2.32E-07
102	0.60	0.	0.	0.	0.	0.	0.	0.	0.	6.48E-12	1.03E-08	3.42E-14	0.	5.16E-07

TEMPERATURE (DEGREES K) 4000. DENSITY (GM/CC) 1.293E+06 (10.0E-04 NORMAL)

PHOTON D ₂ S-R ENERGY BANDS E.V.	02 S-R CONT.	MZ 0-H NO. 1	NO BETA	AO GAMMA	NO 2	0- PHOTO-DET (IOWS)	FREE-FREE (IOWS)	A P.E.	2 P.E.	TOTAL AIE
1 10.70 0.	0.	2.08E-04	0.	0.	0.	1.42E-09	4.45E-17	0.	0.	2.08E-04
2 10.60 0.	0.	1.47E-04	0.	0.	0.	1.63E-09	4.98E-17	0.	0.	1.47E-04
3 10.50 0.	0.	1.26E-04	0.	0.	0.	1.63E-09	4.72E-17	0.	0.	1.26E-04
4 10.40 0.	0.	9.72E-05	0.	0.	0.	1.63E-09	4.95E-17	0.	0.	9.72E-05
5 10.30 0.	0.	6.52E-05	0.	0.	0.	1.63E-09	5.00E-17	0.	0.	6.52E-05
6 10.20 0.	0.	5.72E-05	0.	0.	0.	1.64E-09	5.15E-17	0.	0.	5.72E-05
7 10.10 0.	0.	4.97E-05	0.	0.	0.	1.64E-09	5.10E-17	0.	0.	4.97E-05
8 10.00 0.	0.	2.81E-05	0.	0.	0.	1.64E-09	5.45E-17	0.	0.	2.81E-05
9 9.90 0.	0.	2.72E-05	0.	0.	0.	1.64E-09	5.45E-17	0.	0.	2.72E-05
10 9.80 0.	0.	1.99E-05	0.	0.	0.	1.65E-09	5.81E-17	0.	0.	1.99E-05
11 9.70 0.	0.	1.23E-05	0.	0.	0.	1.65E-09	5.99E-17	0.	0.	1.23E-05
12 9.60 0.	0.	1.32E-05	0.	0.	0.	1.65E-09	6.10E-17	0.	0.	1.32E-05
13 9.50 0.	9.75E-05	7.72E-06	0.	0.	0.	1.65E-09	6.10E-17	0.	0.	1.65E-04
14 9.40 0.	1.10E-04	5.91E-06	0.	0.	0.	1.65E-09	6.55E-17	0.	0.	1.65E-04
15 9.30 0.	1.22E-04	5.50E-06	0.	0.	0.	1.67E-09	6.80E-17	0.	0.	1.67E-04
16 9.20 0.	1.35E-04	2.64E-06	0.	0.	0.	1.67E-09	7.03E-17	0.	0.	1.67E-04
17 9.10 0.	1.64E-04	3.15E-06	0.	0.	0.	1.68E-09	7.24E-17	0.	0.	1.68E-04
18 9.00 0.	2.01E-04	1.98E-06	0.	0.	0.	1.69E-09	7.51E-17	0.	0.	2.01E-04
19 8.90 0.	2.36E-04	1.46E-06	0.	0.	0.	1.69E-09	7.77E-17	0.	0.	2.36E-04
20 8.80 0.	2.45E-04	1.26E-06	0.	0.	0.	1.70E-09	8.03E-17	0.	0.	2.45E-04
21 8.70 0.	2.34E-04	7.29E-07	0.	0.	0.	1.70E-09	8.35E-17	0.	0.	2.34E-04
22 8.60 0.	2.25E-04	7.44E-07	0.	0.	0.	1.71E-09	8.61E-17	0.	0.	2.25E-04
23 8.50 0.	2.15E-04	4.20E-07	0.	0.	0.	1.72E-09	8.92E-17	0.	0.	2.15E-04
24 8.40 0.	2.05E-04	3.93E-07	0.	0.	0.	1.72E-09	9.29E-17	0.	0.	2.05E-04
25 8.30 0.	1.95E-04	2.32E-07	0.	0.	0.	1.73E-09	9.50E-17	0.	0.	1.95E-04
26 8.20 0.	1.85E-04	2.09E-07	0.	0.	0.	1.74E-09	9.94E-17	0.	0.	1.85E-04
27 8.10 0.	1.72E-04	1.30E-07	0.	0.	0.	1.75E-09	1.03E-16	0.	0.	1.72E-04
28 8.00 0.	1.65E-04	1.12E-07	0.	0.	0.	1.76E-09	1.07E-16	0.	0.	1.65E-04
29 7.90 0.	1.52E-04	7.10E-08	0.	0.	0.	1.77E-09	1.11E-16	0.	0.	1.52E-04
30 7.80 0.	1.41E-04	6.20E-08	0.	0.	0.	1.78E-09	1.16E-16	0.	0.	1.41E-04
31 7.70 0.	1.31E-04	4.11E-08	0.	0.	0.	1.79E-09	1.25E-16	0.	0.	1.31E-04
32 7.60 0.	1.20E-04	3.19E-08	0.	0.	0.	1.80E-09	1.29E-16	0.	0.	1.20E-04
33 7.50 0.	1.10E-04	2.23E-08	0.	0.	0.	1.81E-09	1.30E-16	0.	0.	1.10E-04
34 7.40 0.	9.94E-05	1.68E-08	0.	0.	0.	1.82E-09	1.35E-16	0.	0.	9.94E-05
35 7.30 0.	8.92E-05	1.10E-08	0.	0.	0.	1.83E-09	1.41E-16	0.	0.	8.92E-05
36 7.20 0.	7.90E-05	8.29E-09	0.	0.	0.	1.84E-09	1.45E-16	0.	0.	7.90E-05
37 7.10 0.	7.01E-05	6.24E-09	0.	0.	0.	1.85E-09	1.45E-16	0.	0.	7.01E-05
38 7.00 3.32E-07	0.	4.41E-09	0.	0.	0.	1.87E-09	1.60E-16	0.	0.	1.03E-05
39 6.90 5.61E-07	0.	3.16E-09	0.	0.	0.	1.88E-09	1.67E-16	0.	0.	7.02E-06
40 6.80 4.14E-07	0.	2.32E-09	0.	0.	0.	1.90E-09	1.75E-16	0.	0.	1.75E-05
41 6.70 2.54E-07	0.	1.57E-09	0.	0.	0.	1.91E-09	1.83E-16	0.	0.	1.83E-05
42 6.6E-1.35E-07	0.	1.08E-09	0.	0.	0.	1.93E-09	1.91E-16	0.	0.	1.93E-05
43 6.5E-6.49E-08	0.	6.14E-10	0.	0.	0.	1.94E-09	2.00E-16	0.	0.	2.00E-05
44 6.4E-1.00E-07	0.	2.63E-10	0.	0.	0.	1.96E-09	2.10E-16	0.	0.	5.91E-05
45 6.3E-1.92E-07	0.	9.20E-11	0.	0.	0.	1.97E-09	2.20E-16	0.	0.	2.08E-05
46 6.20 4.82E-07	0.	3.03E-11	0.	0.	0.	1.99E-09	2.31E-16	0.	0.	2.33E-05
47 6.10 1.56E-06	0.	8.90E-12	0.	0.	0.	2.00E-09	2.45E-16	0.	0.	9.60E-05
48 6.0E-3.5E-06	0.	1.64E-12	0.	0.	0.	2.02E-09	2.55E-16	0.	0.	1.93E-05
49 5.9E-4.36E-06	0.	1.13E-13	0.	0.	0.	2.02E-09	2.68E-16	0.	0.	2.59E-05
50 5.80 5.31E-06	0.	2.54E-15	0.	0.	0.	1.99E-09	2.82E-16	0.	0.	3.08E-05
51 5.70 4.78E-06	0.	0.	0.	0.	0.	1.87E-09	2.97E-16	0.	0.	1.50E-05

TEMPERATURE (DEGREES K) 4000. DENSITY (GM/CC) 1.293E-07 (10.0E-05 NORMAL)

PHOTON 02 5-P ENERGY BANDS	N2 1ST POS.	N2 2ND POS.	N2+ 1ST NEG.	N2+ 2ND NEG.	NO BETA	AO GAMMA	NO VIB-ROT	NO 2	O- PHOTO-DET	FREE-FREE (IONS)	N P.E.	O P.E.	TOTAL A10
52	5.50	5.40	5.40	0.	0.	0.	0.	0.	0.	3.17E-11	110.00E-18	0.	1.07E-06
53	5.50	4.97	5.08	0.	1.19E-07	1.38E-06	0.	0.	0.	3.18E-11	1.00E-17	0.	1.55E-06
54	5.40	4.92	5.08	0.	0.	0.	0.	0.	0.	3.20E-11	1.12E-17	0.	4.50E-07
55	5.30	3.71	5.08	0.	0.	0.	0.	0.	0.	3.22E-11	1.10E-17	0.	1.12E-06
56	5.20	1.97	5.08	0.	0.	0.	0.	0.	0.	3.24E-11	1.12E-17	0.	4.25E-07
57	5.10	1.68	5.08	0.	0.	0.	0.	0.	0.	4.13E-13	3.27E-11	0.	5.11E-07
58	5.00	1.11	5.08	0.	0.	0.	0.	0.	0.	4.16E-13	3.29E-11	0.	4.50E-07
59	4.90	9.20	5.09	0.	0.	0.	0.	0.	0.	4.19E-13	3.31E-11	0.	2.4E-07
60	4.80	9.30	5.09	0.	0.	0.	0.	0.	0.	4.22E-13	3.33E-11	0.	2.93E-07
61	4.70	8.69	5.09	0.	0.	0.	0.	0.	0.	4.25E-13	3.35E-11	0.	1.57E-07
62	4.60	6.84	5.09	0.	0.	0.	0.	0.	0.	4.28E-13	3.40E-11	0.	1.77E-07
63	4.50	7.39	5.09	0.	0.	0.	0.	0.	0.	4.31E-13	3.43E-11	0.	8.76E-08
64	4.40	6.18	5.09	0.	0.	0.	0.	0.	0.	4.34E-13	3.45E-11	0.	8.05E-08
65	4.30	4.64	5.09	0.	0.	0.	0.	0.	0.	4.37E-13	3.47E-11	0.	4.10E-08
66	4.20	3.62	5.09	0.	0.	0.	0.	0.	0.	4.40E-13	3.51E-11	0.	4.35E-08
67	4.10	2.83	5.09	0.	0.	0.	0.	0.	0.	4.43E-13	3.53E-11	0.	1.98E-08
68	4.00	2.13	5.09	0.	0.	0.	0.	0.	0.	4.46E-13	3.54E-11	0.	1.48E-08
69	3.90	1.39	5.09	0.	0.	0.	0.	0.	0.	4.49E-13	3.53E-11	0.	9.73E-09
70	3.80	1.37	5.09	0.	0.	0.	0.	0.	0.	4.52E-13	3.51E-11	0.	7.81E-09
71	3.70	8.95	5.10	0.	0.	0.	0.	0.	0.	4.55E-13	3.48E-11	0.	4.44E-09
72	3.60	6.48	5.10	0.	0.	0.	0.	0.	0.	4.58E-13	3.47E-11	0.	4.51E-09
73	3.50	4.89	5.10	0.	0.	0.	0.	0.	0.	4.61E-13	3.24E-11	0.	2.50E-09
74	3.40	3.35	5.10	0.	0.	0.	0.	0.	0.	4.64E-13	3.24E-11	0.	1.38E-09
75	3.30	2.38	5.10	0.	0.	0.	0.	0.	0.	4.67E-13	3.17E-11	0.	1.27E-09
76	3.20	1.53	5.10	0.	0.	0.	0.	0.	0.	4.70E-13	3.17E-11	0.	8.6E-10
77	3.10	1.14	5.10	0.	0.	0.	0.	0.	0.	4.73E-13	3.17E-11	0.	6.33E-10
78	3.00	7.24	5.11	0.	0.	0.	0.	0.	0.	4.76E-13	3.17E-11	0.	3.76E-10
79	2.90	4.92	5.11	0.	0.	0.	0.	0.	0.	4.79E-13	3.17E-11	0.	3.76E-10
80	2.80	4.18	5.11	0.	0.	0.	0.	0.	0.	4.82E-13	3.17E-11	0.	1.43E-10
81	2.70	1.74	5.11	0.	0.	0.	0.	0.	0.	4.85E-13	3.17E-11	0.	6.44E-11
82	2.60	4.79	5.12	0.	0.	0.	0.	0.	0.	4.88E-13	3.17E-11	0.	3.02E-11
83	2.50	2.64	5.13	0.	0.	0.	0.	0.	0.	4.91E-13	3.17E-11	0.	1.93E-11
84	2.40	0.	5.13	0.	0.	0.	0.	0.	0.	4.94E-13	3.17E-11	0.	3.82E-11
85	2.30	0.	5.13	0.	0.	0.	0.	0.	0.	4.97E-13	3.17E-11	0.	1.44E-10
86	2.20	0.	5.13	0.	0.	0.	0.	0.	0.	5.00E-13	3.17E-11	0.	4.21E-11
87	2.10	0.	5.13	0.	0.	0.	0.	0.	0.	5.03E-13	3.17E-11	0.	1.14E-10
88	2.00	0.	5.13	0.	0.	0.	0.	0.	0.	5.06E-13	3.17E-11	0.	9.9E-11
89	1.90	0.	5.13	0.	0.	0.	0.	0.	0.	5.09E-13	3.17E-11	0.	5.99E-10
90	1.80	0.	5.13	0.	0.	0.	0.	0.	0.	5.12E-13	3.17E-11	0.	6.33E-10
91	1.70	0.	5.13	0.	0.	0.	0.	0.	0.	5.15E-13	3.17E-11	0.	5.05E-10
92	1.60	0.	5.13	0.	0.	0.	0.	0.	0.	5.18E-13	3.17E-11	0.	4.72E-10
93	1.50	0.	5.13	0.	0.	0.	0.	0.	0.	5.21E-13	3.17E-11	0.	4.72E-10
94	1.40	0.	5.13	0.	0.	0.	0.	0.	0.	5.24E-13	3.17E-11	0.	4.72E-10
95	1.30	0.	5.13	0.	0.	0.	0.	0.	0.	5.27E-13	3.17E-11	0.	4.72E-10
96	1.20	0.	5.13	0.	0.	0.	0.	0.	0.	5.30E-13	3.17E-11	0.	4.72E-10
97	1.10	0.	5.13	0.	0.	0.	0.	0.	0.	5.33E-13	3.17E-11	0.	4.72E-10
98	1.00	0.	5.13	0.	0.	0.	0.	0.	0.	5.36E-13	3.17E-11	0.	4.72E-10
99	0.90	0.	5.13	0.	0.	0.	0.	0.	0.	5.39E-13	3.17E-11	0.	4.72E-10
100	0.80	0.	5.13	0.	0.	0.	0.	0.	0.	5.42E-13	3.17E-11	0.	4.72E-10
101	0.70	0.	5.13	0.	0.	0.	0.	0.	0.	5.45E-13	3.17E-11	0.	4.72E-10
102	0.60	0.	5.13	0.	0.	0.	0.	0.	0.	5.48E-13	3.17E-11	0.	4.72E-10

TEMPERATURE (DEGREES K) 4000. DENSITY (GM/CC) 1.293E-06 (10.0E-06 NORMAL)

PHOTON ENERGY E.V.	O2 S-R CONT.	M2 B-W NO. 1	NO RETA	NO GAMMA	O- PHOTO-DET (10MS)	FREE-FREE (10MS)	N P.E.	O P.E.	TOTAL AIR
1 10.70 0	0	1.84E-06	0	0	5.25E-13	4.43E-20	0	0	1.06E-06
2 10.60 0	0	1.37E-06	0	0	5.26E-13	4.55E-20	0	0	1.37E-06
3 10.50 0	0	1.17E-06	0	0	5.26E-13	4.4E-20	0	0	1.17E-06
4 10.40 0	0	9.07E-07	0	0	5.27E-13	4.7E-20	0	0	9.07E-07
5 10.30 0	0	6.06E-07	0	0	5.28E-13	4.72E-20	0	0	6.06E-07
6 10.20 0	0	5.34E-07	0	0	5.28E-13	5.1E-20	0	0	5.34E-07
7 10.10 0	0	4.26E-07	0	0	5.29E-13	5.27E-20	0	0	4.26E-07
8 10.00 0	0	2.62E-07	0	0	5.30E-13	5.43E-20	0	0	2.62E-07
9 9.90 0	0	2.54E-07	0	0	5.31E-13	5.60E-20	0	0	2.54E-07
10 9.80 0	0	1.86E-07	0	0	5.32E-13	5.77E-20	0	0	1.86E-07
11 9.70 0	0	1.15E-07	0	0	5.33E-13	5.95E-20	0	0	1.15E-07
12 9.60 0	0	1.23E-07	0	0	5.34E-13	6.14E-20	0	0	1.23E-07
13 9.50 0	1.02E-08	7.21E-08	0	0	5.35E-13	6.3E-20	0	0	6.23E-08
14 9.40 0	1.15E-08	5.52E-08	0	0	5.37E-13	6.55E-20	0	0	6.67E-08
15 9.30 0	1.28E-08	5.21E-08	0	0	5.39E-13	6.70E-20	0	0	6.99E-08
16 9.20 0	1.41E-08	2.65E-08	0	0	5.40E-13	6.98E-20	0	0	4.07E-08
17 9.10 0	1.74E-08	2.94E-08	0	0	5.42E-13	7.22E-20	0	0	4.08E-08
18 9.00 0	2.11E-08	1.05E-08	0	0	5.44E-13	7.46E-20	0	0	3.95E-08
19 8.90 0	2.47E-08	1.34E-08	0	0	5.46E-13	7.7E-20	0	0	3.83E-08
20 8.80 0	2.57E-08	1.17E-08	0	0	5.48E-13	7.98E-20	0	0	3.74E-08
21 8.70 0	2.45E-08	6.80E-09	0	0	5.50E-13	8.28E-20	0	0	3.13E-08
22 8.60 0	2.34E-08	6.94E-09	0	0	5.52E-13	8.50E-20	0	0	3.03E-08
23 8.50 0	2.22E-08	4.80E-09	0	0	5.54E-13	8.80E-20	0	0	2.62E-08
24 8.40 0	2.12E-08	3.71E-09	0	0	5.57E-13	9.10E-20	0	0	2.49E-08
25 8.30 0	2.05E-08	2.17E-09	0	0	5.60E-13	9.55E-20	0	0	2.24E-08
26 8.20 0	1.92E-08	1.95E-09	0	0	5.63E-13	9.80E-20	0	0	2.11E-08
27 8.10 0	1.81E-08	1.21E-09	0	0	5.66E-13	1.02E-19	0	0	1.93E-08
28 8.00 0	1.70E-08	1.05E-09	0	0	5.69E-13	1.06E-19	0	0	1.80E-08
29 7.90 0	1.59E-08	6.61E-10	0	0	5.72E-13	1.10E-19	0	0	1.66E-08
30 7.80 0	1.49E-08	5.66E-10	0	0	5.75E-13	1.15E-19	0	0	1.54E-08
31 7.70 0	1.37E-08	3.84E-10	0	0	5.77E-13	1.19E-19	0	0	1.41E-08
32 7.60 0	1.26E-08	2.94E-10	0	0	5.80E-13	1.24E-19	0	0	1.29E-08
33 7.50 0	1.15E-08	2.08E-10	0	0	5.83E-13	1.29E-19	0	0	1.18E-08
34 7.40 0	1.04E-08	1.49E-10	0	0	5.87E-13	1.35E-19	0	0	1.06E-08
35 7.30 0	9.38E-09	1.10E-10	0	0	5.90E-13	1.40E-19	0	0	9.76E-09
36 7.20 0	8.36E-09	7.70E-11	0	0	5.93E-13	1.46E-19	0	0	8.46E-09
37 7.10 0	7.36E-09	5.62E-11	0	0	5.96E-13	1.52E-19	0	0	7.46E-09

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY BANDS		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		NO		FREE-FREE		TOTAL AIR	
1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	BETA	GAMMA	VIB-ROT	NO	PHOTO-DET (IONS)	N	P.E.	3
52	5.45	5.54E-10	0.	0.	2.56E-09	2.95E-08	0.	5.05E-13	3.12E-10	0.	4.25E-08
53	5.50	5.03E-10	0.	0.	3.67E-09	4.84E-08	0.	5.85E-13	3.25E-10	0.	4.70E-08
54	5.40	4.47E-10	0.	0.	2.98E-09	1.02E-08	0.	5.66E-13	3.07E-10	0.	4.13E-08
55	5.30	3.75E-10	0.	0.	2.62E-09	3.04E-08	0.	5.70E-13	3.07E-10	0.	3.38E-08
56	5.25	1.99E-10	0.	0.	2.42E-09	1.01E-08	0.	5.74E-13	3.09E-10	0.	1.27E-08
57	5.15	1.70E-10	0.	0.	2.03E-09	1.33E-08	0.	1.29E-15	5.75E-13	4.12E-10	1.55E-08
58	5.10	1.12E-10	0.	0.	1.46E-09	1.31E-08	0.	1.33E-15	5.83E-13	4.12E-10	1.32E-08
59	4.95	9.29E-11	0.	0.	1.42E-09	6.72E-09	0.	1.32E-15	5.88E-13	4.05E-10	2.26E-09
60	4.80	8.40E-11	0.	0.	1.35E-09	7.31E-09	0.	1.31E-15	5.93E-13	4.04E-10	4.86E-09
61	4.70	8.79E-11	0.	0.	1.19E-09	7.41E-09	0.	1.32E-15	5.98E-13	3.27E-10	4.44E-09
62	4.60	8.93E-11	0.	0.	1.08E-09	4.11E-09	0.	1.33E-15	6.03E-13	5.62E-10	5.28E-09
63	4.50	7.47E-11	0.	7.02E-14	0.	7.79E-10	1.70E-09	0.	1.34E-15	6.08E-13	6.05E-10
64	4.40	6.24E-11	0.	5.07E-13	0.	6.80E-10	1.06E-09	0.	1.35E-15	6.12E-13	6.42E-10
65	4.30	4.69E-11	0.	4.51E-13	0.	5.70E-10	6.96E-10	0.	1.36E-15	6.17E-13	6.85E-10
66	4.20	3.66E-11	0.	4.44E-12	0.	4.74E-10	6.84E-10	0.	1.38E-15	6.22E-13	7.30E-10
67	4.10	2.89E-11	0.	4.11E-12	0.	3.99E-10	1.61E-10	0.	1.40E-15	6.25E-13	7.94E-10
68	4.00	2.15E-11	0.	5.64E-12	0.	2.93E-10	9.82E-11	0.	1.41E-15	6.27E-13	8.55E-10
69	3.90	1.41E-11	0.	3.40E-12	3.50E-14	1.95E-10	6.08E-11	0.	1.42E-15	6.29E-13	9.22E-10
70	3.80	1.39E-11	0.	2.01E-12	1.43E-12	1.97E-10	0.	0.	1.43E-15	6.22E-13	9.97E-10
71	3.70	8.74E-12	0.	6.67E-12	2.47E-13	1.97E-10	0.	0.	1.45E-15	6.12E-13	1.05E-10
72	3.60	6.54E-12	0.	1.01E-12	5.66E-13	1.97E-10	0.	0.	1.47E-15	5.75E-13	1.05E-10
73	3.50	4.94E-12	0.	3.42E-12	7.32E-12	5.66E-11	0.	0.	1.49E-15	5.28E-13	1.26E-10
74	3.40	3.39E-12	0.	5.76E-13	4.60E-14	6.03E-11	0.	0.	1.51E-15	3.03E-13	1.39E-10
75	3.30	2.33E-12	0.	1.11E-12	1.09E-12	3.46E-11	0.	0.	1.52E-15	3.03E-13	1.52E-10
76	3.20	1.54E-12	0.	2.63E-13	1.03E-11	3.46E-11	0.	0.	1.53E-15	3.04E-13	1.67E-10
77	3.10	1.15E-12	0.	2.92E-13	8.02E-11	2.23E-11	0.	0.	1.54E-15	3.02E-13	1.84E-10
78	3.00	7.92E-13	0.	6.53E-14	1.17E-12	1.95E-11	0.	0.	1.55E-15	3.05E-13	2.03E-10
79	2.90	4.97E-13	0.	5.84E-14	1.00E-12	7.88E-12	0.	0.	1.56E-15	3.06E-13	2.23E-10
80	2.80	4.22E-13	0.	1.84E-14	8.43E-14	3.19E-12	0.	0.	1.57E-15	3.06E-13	2.50E-10
81	2.70	1.78E-13	0.	9.60E-15	5.66E-13	9.24E-13	0.	0.	1.58E-15	3.06E-13	2.78E-10
82	2.60	9.4E-14	0.	3.28E-15	8.00E-14	2.31E-13	0.	0.	1.59E-15	3.06E-13	3.12E-10
83	2.50	2.67E-15	0.	6.35E-16	1.52E-14	3.05E-14	0.	0.	1.59E-15	3.06E-13	3.51E-10
84	2.40	0.	1.29E-13	0.	4.33E-14	3.05E-15	0.	0.	1.59E-15	3.06E-13	3.94E-10
85	2.30	0.	1.94E-12	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	4.43E-10
86	2.20	0.	2.33E-12	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	4.98E-10
87	2.10	0.	9.11E-12	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	5.60E-10
88	2.00	0.	7.82E-12	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	6.30E-10
89	1.90	0.	4.85E-11	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	7.09E-10
90	1.80	0.	5.94E-11	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	7.97E-10
91	1.70	0.	5.21E-11	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	8.94E-10
92	1.60	0.	4.35E-11	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	1.00E-10
93	1.50	0.	4.09E-11	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	1.12E-10
94	1.40	0.	7.62E-11	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	1.26E-10
95	1.30	0.	3.46E-11	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	1.42E-10
96	1.20	0.	6.07E-11	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	1.60E-10
97	1.10	0.	2.62E-11	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	1.80E-10
98	1.00	0.	3.23E-11	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	2.02E-10
99	0.90	0.	1.88E-11	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	2.26E-10
100	0.80	0.	9.07E-12	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	2.52E-10
101	0.70	0.	2.34E-12	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	2.80E-10
102	0.60	0.	6.04E-15	0.	0.	0.	0.	0.	1.59E-15	3.06E-13	3.10E-10

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R		02 S-R		TEMPERATURE (DEGREES K)		4000.		DENSITY (GM/CC) 1.293E-09		(10.0E-07 NORMAL)		0		TOTAL AIR	
ENERGY BANDS		CONT.		NO. 1		NO. 2		NO. 2		FREE-SPACE		P.E.		P.E.	
E.V.															
1	10.70	0.	0.	1.03E-07	0.	0.	0.	0.	0.	9.01E-15	1.30E-21	0.	0.	1.03E-07	0.
2	10.60	0.	0.	1.15E-07	0.	0.	0.	0.	0.	9.02E-15	1.34E-21	0.	0.	1.15E-07	0.
3	10.50	0.	0.	9.83E-08	0.	0.	0.	0.	0.	9.03E-15	1.37E-21	0.	0.	9.83E-08	0.
4	10.40	0.	0.	7.08E-08	0.	0.	0.	0.	0.	9.04E-15	1.41E-21	0.	0.	7.08E-08	0.
5	10.30	0.	0.	5.10E-08	0.	0.	0.	0.	0.	9.05E-15	1.46E-21	0.	0.	5.10E-08	0.
6	10.20	0.	0.	3.47E-08	0.	0.	0.	0.	0.	9.06E-15	1.50E-21	0.	0.	3.47E-08	0.
7	10.10	0.	0.	2.20E-08	0.	0.	0.	0.	0.	9.07E-15	1.55E-21	0.	0.	2.20E-08	0.
8	10.00	0.	0.	1.25E-08	0.	0.	0.	0.	0.	9.08E-15	1.59E-21	0.	0.	1.25E-08	0.
9	9.90	0.	0.	7.08E-08	0.	0.	0.	0.	0.	9.11E-15	1.64E-21	0.	0.	7.08E-08	0.
10	9.80	0.	0.	4.60E-08	0.	0.	0.	0.	0.	9.12E-15	1.69E-21	0.	0.	4.60E-08	0.
11	9.70	0.	0.	3.00E-08	0.	0.	0.	0.	0.	9.14E-15	1.75E-21	0.	0.	3.00E-08	0.
12	9.60	0.	0.	1.08E-08	0.	0.	0.	0.	0.	9.14E-15	1.80E-21	0.	0.	1.08E-08	0.
13	9.50	0.	0.	6.04E-09	0.	0.	0.	0.	0.	9.17E-15	1.86E-21	0.	0.	6.04E-09	0.
14	9.40	0.	0.	4.62E-09	0.	0.	0.	0.	0.	9.21E-15	1.92E-21	0.	0.	4.62E-09	0.
15	9.30	0.	0.	3.00E-09	0.	0.	0.	0.	0.	9.24E-15	1.98E-21	0.	0.	3.00E-09	0.
16	9.20	0.	0.	1.42E-09	0.	0.	0.	0.	0.	9.27E-15	2.05E-21	0.	0.	1.42E-09	0.
17	9.10	0.	0.	8.75E-10	0.	0.	0.	0.	0.	9.31E-15	2.12E-21	0.	0.	8.75E-10	0.
18	9.00	0.	0.	4.11E-10	0.	0.	0.	0.	0.	9.34E-15	2.19E-21	0.	0.	4.11E-10	0.
19	8.90	0.	0.	2.44E-10	0.	0.	0.	0.	0.	9.37E-15	2.26E-21	0.	0.	2.44E-10	0.
20	8.80	0.	0.	1.50E-10	0.	0.	0.	0.	0.	9.41E-15	2.34E-21	0.	0.	1.50E-10	0.
21	8.70	0.	0.	9.04E-11	0.	0.	0.	0.	0.	9.44E-15	2.42E-21	0.	0.	9.04E-11	0.
22	8.60	0.	0.	5.70E-11	0.	0.	0.	0.	0.	9.47E-15	2.51E-21	0.	0.	5.70E-11	0.
23	8.50	0.	0.	3.59E-11	0.	0.	0.	0.	0.	9.51E-15	2.60E-21	0.	0.	3.59E-11	0.
24	8.40	0.	0.	2.13E-11	0.	0.	0.	0.	0.	9.54E-15	2.69E-21	0.	0.	2.13E-11	0.
25	8.30	0.	0.	1.01E-11	0.	0.	0.	0.	0.	9.61E-15	2.79E-21	0.	0.	1.01E-11	0.
26	8.20	0.	0.	5.62E-12	0.	0.	0.	0.	0.	9.64E-15	2.90E-21	0.	0.	5.62E-12	0.
27	8.10	0.	0.	3.01E-12	0.	0.	0.	0.	0.	9.71E-15	3.01E-21	0.	0.	3.01E-12	0.
28	8.00	0.	0.	1.70E-12	0.	0.	0.	0.	0.	9.74E-15	3.12E-21	0.	0.	1.70E-12	0.
29	7.90	0.	0.	9.53E-13	0.	0.	0.	0.	0.	9.81E-15	3.24E-21	0.	0.	9.53E-13	0.
30	7.80	0.	0.	5.11E-13	0.	0.	0.	0.	0.	9.86E-15	3.37E-21	0.	0.	5.11E-13	0.
31	7.70	0.	0.	2.71E-13	0.	0.	0.	0.	0.	9.91E-15	3.53E-21	0.	0.	2.71E-13	0.
32	7.60	0.	0.	1.47E-13	0.	0.	0.	0.	0.	9.96E-15	3.64E-21	0.	0.	1.47E-13	0.
33	7.50	0.	0.	8.11E-14	0.	0.	0.	0.	0.	1.00E-15	3.79E-21	0.	0.	8.11E-14	0.
34	7.40	0.	0.	4.35E-14	0.	0.	0.	0.	0.	1.01E-15	3.95E-21	0.	0.	4.35E-14	0.
35	7.30	0.	0.	2.32E-14	0.	0.	0.	0.	0.	1.01E-15	4.11E-21	0.	0.	2.32E-14	0.
36	7.20	0.	0.	1.25E-14	0.	0.	0.	0.	0.	1.02E-15	4.29E-21	0.	0.	1.25E-14	0.
37	7.10	0.	0.	6.85E-15	0.	0.	0.	0.	0.	1.03E-15	4.47E-21	0.	0.	6.85E-15	0.
38	7.00	0.	0.	3.49E-15	0.	0.	0.	0.	0.	1.03E-15	4.67E-21	0.	0.	3.49E-15	0.
39	6.90	0.	0.	1.90E-15	0.	0.	0.	0.	0.	1.04E-15	4.88E-21	0.	0.	1.90E-15	0.
40	6.80	0.	0.	1.00E-15	0.	0.	0.	0.	0.	1.05E-15	5.09E-21	0.	0.	1.00E-15	0.
41	6.70	0.	0.	5.33E-16	0.	0.	0.	0.	0.	1.06E-15	5.33E-21	0.	0.	5.33E-16	0.
42	6.60	0.	0.	2.81E-16	0.	0.	0.	0.	0.	1.07E-15	5.57E-21	0.	0.	2.81E-16	0.
43	6.50	0.	0.	1.50E-16	0.	0.	0.	0.	0.	1.08E-15	5.84E-21	0.	0.	1.50E-16	0.
44	6.40	0.	0.	8.11E-17	0.	0.	0.	0.	0.	1.08E-15	6.11E-21	0.	0.	8.11E-17	0.
45	6.30	0.	0.	4.35E-17	0.	0.	0.	0.	0.	1.09E-15	6.41E-21	0.	0.	4.35E-17	0.
46	6.20	0.	0.	2.32E-17	0.	0.	0.	0.	0.	1.10E-15	6.73E-21	0.	0.	2.32E-17	0.
47	6.10	0.	0.	1.25E-17	0.	0.	0.	0.	0.	1.11E-15	7.06E-21	0.	0.	1.25E-17	0.
48	6.00	0.	0.	6.85E-18	0.	0.	0.	0.	0.	1.12E-15	7.42E-21	0.	0.	6.85E-18	0.
49	5.90	0.	0.	3.49E-18	0.	0.	0.	0.	0.	1.12E-15	7.81E-21	0.	0.	3.49E-18	0.
50	5.80	0.	0.	1.90E-18	0.	0.	0.	0.	0.	1.10E-15	8.22E-21	0.	0.	1.90E-18	0.
51	5.70	0.	0.	1.00E-18	0.	0.	0.	0.	0.	1.13E-15	8.66E-21	0.	0.	1.00E-18	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R ENERGY BANDS		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-09 (10.0E-07 NORMAL)		FREE-FREE PHOTO-DEI (IONS)		TOTAL AIR	
1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.
52	5.60	5.58E-12	0.	7.42E-11	8.40E-10	0.	0.	0.61E-15	9.13E-21	0.	9.21E-10
53	5.50	5.04E-12	0.	1.06E-11	1.24E-09	0.	0.	0.66E-15	9.04E-21	0.	1.36E-09
54	5.40	4.48E-12	0.	7.47E-11	2.99E-10	0.	0.	9.71E-15	1.02E-20	0.	3.77E-10
55	5.30	3.76E-12	0.	7.59E-11	6.93E-10	0.	0.	9.78E-15	1.08E-20	0.	9.73E-10
56	5.20	2.00E-12	0.	7.01E-11	2.93E-10	0.	0.	9.44E-15	1.14E-20	0.	3.65E-10
57	5.10	1.70E-12	0.	5.88E-11	3.64E-10	0.	0.	3.72E-18	9.92E-15	1.21E-20	0.
58	5.00	1.13E-12	0.	4.28E-11	3.51E-10	0.	0.	3.78E-18	1.01E-14	1.38E-20	0.
59	4.90	9.32E-13	0.	4.12E-11	1.96E-10	0.	0.	3.61E-18	1.02E-14	1.45E-20	0.
60	4.80	9.43E-13	0.	3.46E-11	9.86E-11	0.	0.	3.03E-18	1.03E-14	1.95E-20	0.
61	4.70	8.61E-13	0.	3.14E-11	1.19E-10	0.	0.	3.06E-18	1.03E-14	1.65E-20	0.
62	4.60	8.96E-13	0.	2.26E-11	4.93E-11	0.	0.	3.89E-18	1.04E-14	1.76E-20	0.
63	4.50	7.49E-13	0.	1.97E-11	5.23E-11	0.	0.	3.92E-18	1.05E-14	1.68E-20	0.
64	4.40	6.26E-13	0.	1.51E-11	1.75E-11	0.	0.	3.96E-18	1.06E-14	2.02E-20	0.
65	4.30	4.70E-13	0.	1.37E-11	1.93E-11	0.	0.	4.01E-18	1.07E-14	2.17E-20	0.
66	4.20	3.67E-13	0.	1.04E-11	4.73E-12	0.	0.	4.06E-18	1.07E-14	2.33E-20	0.
67	4.10	2.90E-13	0.	8.50E-12	2.79E-12	0.	0.	4.09E-18	1.08E-14	2.51E-20	0.
68	4.00	2.16E-13	0.	6.50E-12	1.76E-12	0.	0.	4.12E-18	1.07E-14	2.71E-20	0.
69	3.90	1.41E-13	0.	5.65E-12	1.76E-12	0.	0.	4.17E-18	1.07E-14	2.93E-20	0.
70	3.80	1.39E-13	0.	5.72E-12	1.76E-12	0.	0.	4.23E-18	1.05E-14	3.17E-20	0.
71	3.70	8.77E-14	0.	5.19E-13	7.11E-12	0.	0.	4.28E-18	9.84E-15	3.44E-20	0.
72	3.60	6.58E-14	0.	4.58E-13	3.51E-12	0.	0.	4.34E-18	9.01E-15	3.75E-20	0.
73	3.50	4.98E-14	0.	2.67E-13	1.73E-12	0.	0.	4.39E-18	5.19E-15	4.09E-20	0.
74	3.40	3.40E-14	0.	4.82E-14	2.25E-14	1.92E-12	0.	4.39E-18	5.20E-15	4.76E-20	0.
75	3.30	2.33E-14	0.	9.29E-14	5.31E-13	1.00E-12	0.	4.45E-18	5.21E-15	4.90E-20	0.
76	3.20	1.59E-14	0.	2.20E-14	3.92E-14	6.46E-13	0.	4.46E-18	5.22E-15	5.39E-20	0.
77	3.10	1.16E-14	0.	7.14E-15	5.74E-13	4.78E-13	0.	4.40E-18	5.24E-15	5.95E-20	0.
78	3.00	7.94E-15	0.	4.90E-15	8.79E-13	2.28E-13	0.	4.35E-18	5.24E-15	6.59E-20	0.
79	2.90	4.98E-15	0.	1.59E-15	4.12E-14	9.24E-14	0.	4.27E-18	5.25E-15	7.32E-20	0.
80	2.80	4.23E-15	0.	8.04E-16	2.77E-13	2.68E-14	0.	4.19E-18	5.25E-15	8.17E-20	0.
81	2.70	1.78E-15	0.	3.33E-16	4.31E-14	6.69E-15	0.	4.09E-18	5.25E-15	9.15E-20	0.
82	2.60	4.86E-16	0.	7.03E-17	7.42E-15	1.11E-15	0.	3.92E-18	5.25E-15	1.03E-19	0.
83	2.50	2.67E-17	0.	1.08E-14	0.	0.	0.	3.76E-18	5.25E-15	1.16E-19	0.
84	2.40	0.	0.	1.64E-13	0.	0.	0.	3.52E-18	5.21E-15	1.32E-19	0.
85	2.30	0.	0.	7.68E-13	0.	0.	0.	3.27E-18	5.18E-15	1.51E-19	0.
86	2.20	0.	0.	6.59E-13	0.	0.	0.	3.01E-18	5.17E-15	1.74E-19	0.
87	2.10	0.	0.	4.04E-12	0.	0.	0.	2.69E-18	5.00E-15	2.01E-19	0.
88	2.00	0.	0.	4.36E-12	0.	0.	0.	2.51E-18	4.81E-15	2.35E-19	0.
89	1.90	0.	0.	4.97E-12	0.	0.	0.	2.00E-18	4.50E-15	2.76E-19	0.
90	1.80	0.	0.	3.64E-12	0.	0.	0.	1.61E-18	4.34E-15	3.28E-19	0.
91	1.70	0.	0.	3.72E-12	0.	0.	0.	1.29E-18	4.67E-15	3.94E-19	0.
92	1.60	0.	0.	6.58E-12	0.	0.	0.	9.75E-19	1.67E-15	4.78E-19	0.
93	1.50	0.	0.	2.90E-12	0.	0.	0.	7.26E-19	0.	5.88E-19	0.
94	1.40	0.	0.	5.09E-12	0.	0.	0.	4.82E-19	0.	7.35E-19	0.
95	1.30	0.	0.	2.20E-12	0.	0.	0.	3.08E-19	0.	9.36E-19	0.
96	1.20	0.	0.	2.70E-12	0.	0.	0.	1.85E-19	0.	1.22E-18	0.
97	1.10	0.	0.	2.70E-12	0.	0.	0.	1.62E-18	0.	1.62E-18	0.
98	1.00	0.	0.	1.58E-12	0.	0.	0.	2.03E-18	0.	2.03E-18	0.
99	0.90	0.	0.	1.78E-13	0.	0.	0.	3.18E-18	0.	3.18E-18	0.
100	0.80	0.	0.	1.94E-13	0.	0.	0.	4.77E-18	0.	4.77E-18	0.
101	0.70	0.	0.	5.09E-16	0.	0.	0.	7.61E-18	0.	7.61E-18	0.
102	0.60	0.	0.	5.09E-16	0.	0.	0.	5.11E-19	0.	5.11E-19	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY E.V.	02 S-R BANDS	02 S-R CONT.	TEMPERATURE (DEGREES K)		NO BETA	NO GAMMA	DENSITY (GM/CC)		1.2532-03 (10.06-01 NORMAL)		0 P.E.	TOTAL AIR
			NO. 1	NO. 2			NO	0-	FREE-FREE	N		
								PHOTO-DET (IONS)				
1	10.70	0.	6.42E-01	0.	0.	0.	0.	5.23E-04	1.02E-10	0.	0.	6.42E-01
2	10.60	0.	4.84E-01	0.	0.	0.	0.	5.24E-04	1.05E-10	0.	0.	4.84E-01
3	10.50	0.	4.34E-01	0.	0.	0.	0.	5.24E-04	1.08E-10	0.	0.	4.34E-01
4	10.40	0.	3.82E-01	0.	0.	0.	0.	5.25E-04	1.11E-10	0.	0.	3.82E-01
5	10.30	0.	3.28E-01	0.	0.	0.	0.	5.26E-04	1.14E-10	0.	0.	3.28E-01
6	10.20	0.	2.71E-01	0.	0.	0.	0.	5.26E-04	1.18E-10	0.	0.	2.71E-01
7	10.10	0.	2.13E-01	0.	0.	0.	0.	5.27E-04	1.21E-10	0.	0.	2.13E-01
8	10.00	0.	1.53E-01	0.	0.	0.	0.	5.28E-04	1.25E-10	0.	0.	1.53E-01
9	9.90	0.	1.28E-01	0.	0.	0.	0.	5.29E-04	1.29E-10	0.	0.	1.28E-01
10	9.80	0.	9.98E-02	0.	0.	0.	0.	5.30E-04	1.33E-10	0.	0.	9.98E-02
11	9.70	0.	6.73E-02	0.	0.	0.	0.	5.31E-04	1.37E-10	0.	0.	6.73E-02
12	9.60	0.	7.21E-02	0.	0.	0.	0.	5.32E-04	1.42E-10	0.	0.	7.21E-02
13	9.50	0.	2.32E-01	0.	0.	0.	0.	5.33E-04	1.46E-10	0.	0.	2.32E-01
14	9.40	0.	2.55E-01	0.	0.	0.	0.	5.35E-04	1.51E-10	0.	0.	2.55E-01
15	9.30	0.	2.78E-01	0.	0.	0.	0.	5.37E-04	1.56E-10	0.	0.	2.78E-01
16	9.20	0.	3.00E-01	0.	0.	0.	0.	5.39E-04	1.61E-10	0.	0.	3.00E-01
17	9.10	0.	3.70E-01	0.	0.	0.	0.	5.40E-04	1.66E-10	0.	0.	3.70E-01
18	9.00	0.	4.50E-01	0.	0.	0.	0.	5.42E-04	1.72E-10	0.	0.	4.50E-01
19	8.90	0.	5.29E-01	0.	0.	0.	0.	5.44E-04	1.78E-10	0.	0.	5.29E-01
20	8.80	0.	5.50E-01	0.	0.	0.	0.	5.46E-04	1.84E-10	0.	0.	5.50E-01
21	8.70	0.	5.24E-01	0.	0.	0.	0.	5.48E-04	1.91E-10	0.	0.	5.24E-01
22	8.60	0.	5.01E-01	0.	0.	0.	0.	5.50E-04	1.97E-10	0.	0.	5.01E-01
23	8.50	0.	4.79E-01	0.	0.	0.	0.	5.52E-04	2.04E-10	0.	0.	4.79E-01
24	8.40	0.	4.59E-01	0.	0.	0.	0.	5.55E-04	2.12E-10	0.	0.	4.59E-01
25	8.30	0.	4.43E-01	0.	0.	0.	0.	5.58E-04	2.20E-10	0.	0.	4.43E-01
26	8.20	0.	4.21E-01	0.	0.	0.	0.	5.61E-04	2.28E-10	0.	0.	4.21E-01
27	8.10	0.	4.02E-01	0.	0.	0.	0.	5.64E-04	2.36E-10	0.	0.	4.02E-01
28	8.00	0.	3.83E-01	0.	0.	0.	0.	5.67E-04	2.45E-10	0.	0.	3.83E-01
29	7.90	0.	3.61E-01	0.	0.	0.	0.	5.70E-04	2.55E-10	0.	0.	3.61E-01
30	7.80	0.	3.40E-01	0.	0.	0.	0.	5.72E-04	2.65E-10	0.	0.	3.40E-01
31	7.70	0.	3.19E-01	0.	0.	0.	0.	5.75E-04	2.75E-10	0.	0.	3.19E-01
32	7.60	0.	2.97E-01	0.	0.	0.	0.	5.78E-04	2.86E-10	0.	0.	2.97E-01
33	7.50	0.	2.75E-01	0.	0.	0.	0.	5.81E-04	2.98E-10	0.	0.	2.75E-01
34	7.40	0.	2.53E-01	0.	0.	0.	0.	5.84E-04	3.10E-10	0.	0.	2.53E-01
35	7.30	0.	2.30E-01	0.	0.	0.	0.	5.88E-04	3.23E-10	0.	0.	2.30E-01
36	7.20	0.	2.09E-01	0.	0.	0.	0.	5.91E-04	3.37E-10	0.	0.	2.09E-01
37	7.10	0.	1.88E-01	0.	0.	0.	0.	5.96E-04	3.51E-10	0.	0.	1.88E-01
38	7.00	0.	1.61E-01	0.	0.	0.	0.	6.01E-04	3.67E-10	0.	0.	1.61E-01
39	6.90	0.	1.04E-02	0.	0.	0.	0.	6.05E-04	3.83E-10	0.	0.	1.04E-02
40	6.80	0.	7.95E-03	0.	0.	0.	0.	6.10E-04	4.00E-10	0.	0.	7.95E-03
41	6.70	0.	5.05E-03	0.	0.	0.	0.	6.15E-04	4.18E-10	0.	0.	5.05E-03
42	6.60	0.	2.78E-03	0.	0.	0.	0.	6.20E-04	4.36E-10	0.	0.	2.78E-03
43	6.50	0.	1.40E-03	0.	0.	0.	0.	6.25E-04	4.56E-10	0.	0.	1.40E-03
44	6.40	0.	2.09E-03	0.	0.	0.	0.	6.30E-04	4.80E-10	0.	0.	2.09E-03
45	6.30	0.	4.13E-03	0.	0.	0.	0.	6.34E-04	5.03E-10	0.	0.	4.13E-03
46	6.20	0.	1.09E-02	0.	0.	0.	0.	6.39E-04	5.28E-10	0.	0.	1.09E-02
47	6.10	0.	3.80E-02	0.	0.	0.	0.	6.44E-04	5.55E-10	0.	0.	3.80E-02
48	6.00	0.	8.6E-02	0.	0.	0.	0.	6.49E-04	5.83E-10	0.	0.	8.6E-02
49	5.90	0.	1.21E-01	0.	0.	0.	0.	6.49E-04	6.13E-10	0.	0.	1.21E-01
50	5.80	0.	1.59E-01	0.	0.	0.	0.	6.59E-04	6.46E-10	0.	0.	1.59E-01
51	5.70	0.	1.53E-01	0.	0.	0.	0.	6.61E-04	6.80E-10	0.	0.	1.53E-01

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-F		TEMPERATURE (DEGREES K)		DENSITY (GM/CC) 1.293E-03 (10.0E-01 NORMAL)		NO		NO		FREE-FREE		N		TOTAL AIR	
ENERGY	1ST POS.	2ND POS.	1ST NEG.	BETA	AD	GAMMA	VIS-ROT	2	PHOTO-DET (IONS)	UT	FREE-FREE	N	P.F.	O	P.F.
52	3.60	1.78E-01	0.	0.	2.67E-02	2.51E-01	0.	0.	5.56E-04	7.18E-10	0.	0.	0.	4.56E-01	0.
53	5.50	1.69E-01	0.	0.	3.58E-02	3.07E-01	0.	0.	5.61E-04	7.58E-10	0.	0.	0.	5.12E-01	0.
54	5.40	1.58E-01	0.	0.	2.64E-02	1.10E-01	0.	0.	5.64E-04	8.01E-10	0.	0.	0.	2.95E-01	0.
55	5.30	1.39E-01	0.	0.	2.71E-02	2.52E-01	0.	0.	5.68E-04	8.47E-10	0.	0.	0.	4.18E-01	0.
56	5.20	8.15E-02	0.	0.	2.61E-02	9.43E-02	0.	0.	5.71E-04	8.97E-10	0.	0.	0.	2.03E-01	0.
57	5.10	7.11E-02	0.	0.	2.35E-02	1.34E-01	0.	0.	5.74E-04	9.51E-10	0.	0.	0.	2.28E-01	0.
58	5.00	4.05E-02	0.	0.	1.84E-02	1.14E-01	0.	0.	5.77E-04	1.01E-09	0.	0.	0.	1.82E-01	0.
59	4.90	4.01E-02	0.	0.	1.80E-02	8.16E-02	0.	0.	5.80E-04	1.07E-09	0.	0.	0.	1.41E-01	0.
60	4.80	4.07E-02	0.	0.	1.85E-02	8.00E-02	0.	0.	5.83E-04	1.14E-09	0.	0.	0.	1.05E-01	0.
61	4.70	3.99E-02	0.	0.	1.59E-02	4.81E-02	0.	0.	5.86E-04	1.21E-09	0.	0.	0.	1.10E-01	0.
62	4.60	4.27E-02	0.	0.	1.49E-02	5.14E-02	0.	0.	5.89E-04	1.30E-09	0.	0.	0.	7.21E-02	0.
63	4.50	3.79E-02	0.	0.	1.14E-02	2.71E-02	0.	0.	5.92E-04	1.48E-09	0.	0.	0.	6.96E-02	0.
64	4.40	3.37E-02	0.	0.	8.38E-03	2.48E-02	0.	0.	5.95E-04	1.59E-09	0.	0.	0.	4.88E-02	0.
65	4.30	2.68E-02	0.	0.	6.03E-03	1.01E-02	0.	0.	5.98E-04	1.70E-09	0.	0.	0.	4.08E-02	0.
66	4.20	2.19E-02	0.	0.	4.22E-03	2.43E-03	0.	0.	6.01E-04	1.83E-09	0.	0.	0.	2.77E-02	0.
67	4.10	1.81E-02	0.	0.	3.92E-03	1.64E-03	0.	0.	6.04E-04	1.97E-09	0.	0.	0.	2.22E-02	0.
68	4.00	1.33E-02	0.	0.	2.03E-03	9.15E-04	0.	0.	6.07E-04	2.13E-09	0.	0.	0.	1.57E-02	0.
69	3.90	9.99E-03	0.	0.	1.49E-03	4.00E-04	0.	0.	6.10E-04	2.30E-09	0.	0.	0.	1.38E-02	0.
70	3.80	6.91E-03	0.	0.	1.26E-03	4.10E-04	0.	0.	6.13E-04	2.49E-09	0.	0.	0.	1.03E-02	0.
71	3.70	5.49E-03	0.	0.	9.48E-04	2.74E-04	0.	0.	6.16E-04	2.71E-09	0.	0.	0.	8.99E-03	0.
72	3.60	5.49E-03	0.	0.	2.39E-03	1.63E-04	0.	0.	6.19E-04	2.95E-09	0.	0.	0.	6.41E-03	0.
73	3.50	4.33E-03	0.	0.	3.95E-06	2.44E-09	0.	0.	6.22E-04	3.21E-09	0.	0.	0.	5.40E-03	0.
74	3.40	3.23E-03	0.	0.	9.08E-06	3.42E-09	0.	0.	6.25E-04	3.52E-09	0.	0.	0.	3.77E-03	0.
75	3.30	2.31E-03	0.	0.	3.01E-06	2.11E-07	0.	0.	6.28E-04	3.86E-09	0.	0.	0.	3.08E-03	0.
76	3.20	1.59E-03	0.	0.	2.86E-06	4.51E-09	0.	0.	6.31E-04	4.24E-09	0.	0.	0.	2.88E-03	0.
77	3.10	1.32E-03	0.	0.	1.02E-06	3.84E-09	0.	0.	6.34E-04	4.68E-09	0.	0.	0.	2.88E-03	0.
78	3.00	8.62E-04	0.	0.	6.88E-07	4.19E-09	0.	0.	6.37E-04	5.18E-09	0.	0.	0.	1.88E-03	0.
79	2.90	6.54E-04	0.	0.	2.54E-07	3.94E-09	0.	0.	6.40E-04	5.76E-09	0.	0.	0.	1.46E-03	0.
80	2.80	5.87E-04	0.	0.	1.21E-07	1.79E-09	0.	0.	6.43E-04	6.43E-09	0.	0.	0.	1.16E-03	0.
81	2.70	2.78E-04	0.	0.	9.71E-08	2.23E-09	0.	0.	6.46E-04	7.20E-09	0.	0.	0.	7.58E-04	0.
82	2.60	8.72E-05	0.	0.	1.01E-08	6.61E-10	0.	0.	6.49E-04	8.10E-09	0.	0.	0.	5.34E-04	0.
83	2.50	5.15E-06	0.	0.	1.05E-08	2.72E-06	0.	0.	6.52E-04	9.10E-09	0.	0.	0.	4.40E-04	0.
84	2.40	1.0E-06	0.	0.	1.08E-08	2.36E-07	0.	0.	6.55E-04	1.04E-09	0.	0.	0.	4.33E-04	0.
85	2.30	0.	0.	0.	1.09E-08	0.	0.	0.	6.58E-04	1.19E-09	0.	0.	0.	4.40E-04	0.
86	2.20	0.	0.	0.	1.09E-08	0.	0.	0.	6.61E-04	1.37E-09	0.	0.	0.	4.44E-04	0.
87	2.10	0.	0.	0.	1.09E-08	0.	0.	0.	6.64E-04	1.59E-09	0.	0.	0.	4.70E-04	0.
88	2.00	0.	0.	0.	1.09E-08	0.	0.	0.	6.67E-04	1.85E-09	0.	0.	0.	4.82E-04	0.
89	1.90	0.	0.	0.	1.09E-08	0.	0.	0.	6.70E-04	2.18E-09	0.	0.	0.	5.88E-04	0.
90	1.80	0.	0.	0.	1.09E-08	0.	0.	0.	6.73E-04	2.59E-09	0.	0.	0.	5.82E-04	0.
91	1.70	0.	0.	0.	1.09E-08	0.	0.	0.	6.76E-04	3.10E-09	0.	0.	0.	4.89E-04	0.
92	1.60	0.	0.	0.	1.09E-08	0.	0.	0.	6.79E-04	3.77E-09	0.	0.	0.	3.98E-04	0.
93	1.50	0.	0.	0.	1.09E-08	0.	0.	0.	6.82E-04	4.54E-09	0.	0.	0.	3.70E-04	0.
94	1.40	0.	0.	0.	1.09E-08	0.	0.	0.	6.85E-04	5.44E-09	0.	0.	0.	2.63E-04	0.
95	1.30	0.	0.	0.	1.09E-08	0.	0.	0.	6.88E-04	6.48E-09	0.	0.	0.	2.17E-04	0.
96	1.20	0.	0.	0.	1.09E-08	0.	0.	0.	6.91E-04	7.68E-09	0.	0.	0.	2.34E-04	0.
97	1.10	0.	0.	0.	1.09E-08	0.	0.	0.	6.94E-04	9.04E-09	0.	0.	0.	2.47E-04	0.
98	1.00	0.	0.	0.	1.09E-08	0.	0.	0.	6.97E-04	1.06E-08	0.	0.	0.	2.20E-04	0.
99	0.90	0.	0.	0.	1.09E-08	0.	0.	0.	7.00E-04	1.25E-08	0.	0.	0.	2.67E-04	0.
100	0.80	0.	0.	0.	1.09E-08	0.	0.	0.	7.03E-04	1.48E-08	0.	0.	0.	2.23E-04	0.
101	0.70	0.	0.	0.	1.09E-08	0.	0.	0.	7.06E-04	1.76E-08	0.	0.	0.	2.16E-04	0.
102	0.60	0.	0.	0.	1.09E-08	0.	0.	0.	7.09E-04	2.10E-08	0.	0.	0.	2.16E-04	0.

TEMPERATURE (DEGREES K) 500. DENSITY (GM/CC) 1.293E-04 (10.0E-02 NORMAL)

100

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		130.0E-02 NORMAL		TOTAL AIR	
ENERGY BANDS	1ST POS.	2ND POS.	1ST NEG.	2ND POS.	1ST NEG.	2ND POS.	1ST NEG.	2ND POS.	1ST NEG.
1ST POS.	2ND POS.	1ST NEG.	2ND POS.	1ST NEG.	2ND POS.	1ST NEG.	2ND POS.	1ST NEG.	2ND POS.
52	2.60	3.18E-03	0.	0.	1.12E-03	1.07E-02	0.	0.	1.50E-02
53	5.50	2.80E-03	0.	0.	1.91E-03	1.30E-02	0.	0.	1.76E-02
54	5.40	2.80E-03	0.	0.	1.12E-03	4.65E-03	0.	0.	0.60E-03
55	5.30	2.80E-03	0.	0.	1.12E-03	1.07E-02	0.	0.	1.44E-02
56	5.20	1.44E-03	0.	0.	1.12E-03	1.07E-02	0.	0.	6.57E-03
57	5.10	1.28E-03	0.	0.	9.88E-04	5.68E-03	0.	0.	7.94E-03
58	5.00	6.58E-04	0.	0.	7.68E-04	4.84E-03	0.	0.	6.48E-03
59	4.90	7.08E-04	0.	0.	7.68E-04	3.46E-03	0.	0.	4.96E-03
60	4.80	7.19E-04	0.	0.	7.68E-04	3.40E-03	0.	0.	4.92E-03
61	4.70	7.06E-04	0.	0.	6.75E-04	2.06E-03	0.	0.	3.44E-03
62	4.60	7.55E-04	0.	0.	6.38E-04	2.15E-03	0.	0.	3.60E-03
63	4.50	6.70E-04	0.	0.	4.84E-04	1.15E-03	0.	0.	2.32E-03
64	4.40	5.96E-04	0.	0.	4.40E-04	1.09E-03	0.	0.	2.11E-03
65	4.30	4.74E-04	0.	0.	3.95E-04	4.29E-04	0.	0.	1.28E-03
66	4.20	3.88E-04	0.	0.	3.41E-04	4.29E-04	0.	0.	1.18E-03
67	4.10	3.19E-04	0.	0.	2.75E-04	1.03E-04	0.	0.	7.17E-04
68	4.00	2.32E-04	0.	0.	2.35E-04	0.92E-05	0.	0.	5.79E-04
69	3.90	1.79E-04	0.	0.	2.07E-04	7.08E-10	0.	0.	4.06E-04
70	3.80	1.79E-04	0.	0.	1.72E-04	1.74E-04	0.	0.	3.73E-04
71	3.70	1.23E-04	0.	0.	1.15E-04	1.07E-04	0.	0.	2.52E-04
72	3.60	9.70E-05	0.	0.	9.59E-05	2.37E-05	0.	0.	2.34E-04
73	3.50	7.72E-05	0.	0.	6.48E-05	4.47E-05	0.	0.	1.62E-04
74	3.40	5.72E-05	0.	0.	6.07E-05	1.15E-05	0.	0.	1.41E-04
75	3.30	4.09E-05	0.	0.	9.27E-05	1.63E-05	0.	0.	9.46E-05
76	3.20	2.14E-05	0.	0.	3.03E-05	1.61E-05	0.	0.	8.13E-05
77	3.10	2.33E-05	0.	0.	2.89E-05	1.61E-05	0.	0.	6.44E-05
78	3.00	1.71E-05	0.	0.	1.09E-05	1.71E-05	0.	0.	5.12E-05
79	2.90	1.16E-05	0.	0.	6.74E-06	2.46E-05	0.	0.	3.43E-05
80	2.80	1.06E-05	0.	0.	2.56E-06	1.87E-05	0.	0.	2.59E-05
81	2.70	4.88E-06	0.	0.	1.23E-06	8.50E-06	0.	0.	1.64E-05
82	2.60	1.54E-06	0.	0.	5.82E-06	1.08E-06	0.	0.	9.61E-06
83	2.50	9.10E-06	0.	0.	1.03E-06	3.16E-10	0.	0.	9.52E-06
84	2.40	0.	0.	0.	6.67E-10	1.00E-09	0.	0.	0.
85	2.30	0.	0.	0.	0.	0.	0.	0.	0.
86	2.20	0.	0.	0.	0.	0.	0.	0.	0.
87	2.10	0.	0.	0.	0.	0.	0.	0.	0.
88	2.00	0.	0.	0.	0.	0.	0.	0.	0.
89	1.90	0.	0.	0.	0.	0.	0.	0.	0.
90	1.80	0.	0.	0.	0.	0.	0.	0.	0.
91	1.70	0.	0.	0.	0.	0.	0.	0.	0.
92	1.60	0.	0.	0.	0.	0.	0.	0.	0.
93	1.50	0.	0.	0.	0.	0.	0.	0.	0.
94	1.40	0.	0.	0.	0.	0.	0.	0.	0.
95	1.30	0.	0.	0.	0.	0.	0.	0.	0.
96	1.20	0.	0.	0.	0.	0.	0.	0.	0.
97	1.10	0.	0.	0.	0.	0.	0.	0.	0.
98	1.00	0.	0.	0.	0.	0.	0.	0.	0.
99	0.90	0.	0.	0.	0.	0.	0.	0.	0.
100	0.80	0.	0.	0.	0.	0.	0.	0.	0.
101	0.70	0.	0.	0.	0.	0.	0.	0.	0.
102	0.60	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		3000.		DENSITY (GM/CC) 1.293E-05 (10.0E-03 NORMAL)		NO		C-		FREE-FREE		N		O		TOTAL AIR	
PHECTON 02 S-4		02 S-4		NO		NO		2		PHOTO-DET (IONS)		P.E.		P.E.		P.E.	
F.E.V.		NO. 1		BETA		GAMMA											
5	10.70	0.	6.45E-03	0.	0.	0	0	0.	0.	2.98E-07	1.47E-13	0.	0.	0.	0.	6.45E-03	0.
6	10.60	0.	4.96E-03	0.	0.	0	0	0.	0.	2.99E-07	1.51E-13	0.	0.	0.	0.	4.96E-03	0.
7	10.50	0.	4.34E-03	0.	0.	0	0	0.	0.	2.99E-07	1.56E-13	0.	0.	0.	0.	4.34E-03	0.
8	10.40	0.	3.53E-03	0.	0.	0	0	0.	0.	2.99E-07	1.60E-13	0.	0.	0.	0.	3.53E-03	0.
9	10.30	0.	2.56E-03	0.	0.	0	0	0.	0.	3.00E-07	1.65E-13	0.	0.	0.	0.	2.56E-03	0.
10	10.20	0.	2.22E-03	0.	0.	0	0	0.	0.	3.00E-07	1.70E-13	0.	0.	0.	0.	2.22E-03	0.
11	10.10	0.	1.93E-03	0.	0.	0	0	0.	0.	3.01E-07	1.75E-13	0.	0.	0.	0.	1.93E-03	0.
12	10.00	0.	1.71E-03	0.	0.	0	0	0.	0.	3.01E-07	1.81E-13	0.	0.	0.	0.	1.71E-03	0.
13	9.90	0.	1.26E-03	0.	0.	0	0	0.	0.	3.02E-07	1.86E-13	0.	0.	0.	0.	1.26E-03	0.
14	9.80	0.	1.09E-03	0.	0.	0	0	0.	0.	3.02E-07	1.92E-13	0.	0.	0.	0.	1.09E-03	0.
15	9.70	0.	1.00E-04	0.	0.	0	0	0.	0.	3.03E-07	1.98E-13	0.	0.	0.	0.	1.00E-04	0.
16	9.60	0.	7.44E-04	0.	0.	0	0	0.	0.	3.03E-07	2.04E-13	0.	0.	0.	0.	7.44E-04	0.
17	9.50	0.	4.85E-04	0.	0.	0	0	0.	0.	3.04E-07	2.11E-13	0.	0.	0.	0.	4.85E-04	0.
18	9.40	0.	5.30E-04	0.	0.	0	0	0.	0.	3.05E-07	2.18E-13	0.	0.	0.	0.	5.30E-04	0.
19	9.30	0.	5.77E-04	0.	0.	0	0	0.	0.	3.06E-07	2.25E-13	0.	0.	0.	0.	5.77E-04	0.
20	9.20	0.	6.24E-04	0.	0.	0	0	0.	0.	3.07E-07	2.32E-13	0.	0.	0.	0.	6.24E-04	0.
21	9.10	0.	7.05E-04	0.	0.	0	0	0.	0.	3.08E-07	2.40E-13	0.	0.	0.	0.	7.05E-04	0.
22	9.00	0.	9.35E-04	0.	0.	0	0	0.	0.	3.09E-07	2.48E-13	0.	0.	0.	0.	9.35E-04	0.
23	8.90	0.	1.10E-03	0.	0.	0	0	0.	0.	3.10E-07	2.57E-13	0.	0.	0.	0.	1.10E-03	0.
24	8.80	0.	1.14E-03	0.	0.	0	0	0.	0.	3.12E-07	2.66E-13	0.	0.	0.	0.	1.14E-03	0.
25	8.70	0.	1.09E-03	0.	0.	0	0	0.	0.	3.13E-07	2.75E-13	0.	0.	0.	0.	1.09E-03	0.
26	8.60	0.	1.04E-03	0.	0.	0	0	0.	0.	3.14E-07	2.85E-13	0.	0.	0.	0.	1.04E-03	0.
27	8.50	0.	9.96E-04	0.	0.	0	0	0.	0.	3.15E-07	2.95E-13	0.	0.	0.	0.	9.96E-04	0.
28	8.40	0.	9.55E-04	0.	0.	0	0	0.	0.	3.17E-07	3.04E-13	0.	0.	0.	0.	9.55E-04	0.
29	8.30	0.	9.15E-04	0.	0.	0	0	0.	0.	3.18E-07	3.17E-13	0.	0.	0.	0.	9.15E-04	0.
30	8.20	0.	8.75E-04	0.	0.	0	0	0.	0.	3.20E-07	3.29E-13	0.	0.	0.	0.	8.75E-04	0.
31	8.10	0.	8.35E-04	0.	0.	0	0	0.	0.	3.22E-07	3.41E-13	0.	0.	0.	0.	8.35E-04	0.
32	8.00	0.	7.96E-04	0.	0.	0	0	0.	0.	3.23E-07	3.54E-13	0.	0.	0.	0.	7.96E-04	0.
33	7.90	0.	7.51E-04	0.	0.	0	0	0.	0.	3.25E-07	3.68E-13	0.	0.	0.	0.	7.51E-04	0.
34	7.80	0.	7.07E-04	0.	0.	0	0	0.	0.	3.26E-07	3.82E-13	0.	0.	0.	0.	7.07E-04	0.
35	7.70	0.	6.65E-04	0.	0.	0	0	0.	0.	3.28E-07	3.97E-13	0.	0.	0.	0.	6.65E-04	0.
36	7.60	0.	6.18E-04	0.	0.	0	0	0.	0.	3.30E-07	4.13E-13	0.	0.	0.	0.	6.18E-04	0.
37	7.50	0.	5.73E-04	0.	0.	0	0	0.	0.	3.31E-07	4.30E-13	0.	0.	0.	0.	5.73E-04	0.
38	7.40	0.	5.26E-04	0.	0.	0	0	0.	0.	3.33E-07	4.48E-13	0.	0.	0.	0.	5.26E-04	0.
39	7.30	0.	4.79E-04	0.	0.	0	0	0.	0.	3.35E-07	4.66E-13	0.	0.	0.	0.	4.79E-04	0.
40	7.20	0.	4.35E-04	0.	0.	0	0	0.	0.	3.37E-07	4.86E-13	0.	0.	0.	0.	4.35E-04	0.
41	7.10	0.	3.92E-04	0.	0.	0	0	0.	0.	3.40E-07	5.07E-13	0.	0.	0.	0.	3.92E-04	0.
42	7.00	0.	3.51E-04	0.	0.	0	0	0.	0.	3.43E-07	5.29E-13	0.	0.	0.	0.	3.51E-04	0.
43	6.90	0.	3.12E-04	0.	0.	0	0	0.	0.	3.45E-07	5.52E-13	0.	0.	0.	0.	3.12E-04	0.
44	6.80	0.	2.76E-04	0.	0.	0	0	0.	0.	3.48E-07	5.77E-13	0.	0.	0.	0.	2.76E-04	0.
45	6.70	0.	2.43E-04	0.	0.	0	0	0.	0.	3.51E-07	6.03E-13	0.	0.	0.	0.	2.43E-04	0.
46	6.60	0.	2.13E-04	0.	0.	0	0	0.	0.	3.54E-07	6.31E-13	0.	0.	0.	0.	2.13E-04	0.
47	6.50	0.	1.86E-04	0.	0.	0	0	0.	0.	3.56E-07	6.61E-13	0.	0.	0.	0.	1.86E-04	0.
48	6.40	0.	1.62E-04	0.	0.	0	0	0.	0.	3.59E-07	6.93E-13	0.	0.	0.	0.	1.62E-04	0.
49	6.30	0.	1.40E-04	0.	0.	0	0	0.	0.	3.62E-07	7.26E-13	0.	0.	0.	0.	1.40E-04	0.
50	6.20	0.	1.20E-04	0.	0.	0	0	0.	0.	3.65E-07	7.62E-13	0.	0.	0.	0.	1.20E-04	0.
51	6.10	0.	1.02E-04	0.	0.	0	0	0.	0.	3.68E-07	8.00E-13	0.	0.	0.	0.	1.02E-04	0.
52	6.00	0.	8.66E-05	0.	0.	0	0	0.	0.	3.70E-07	8.41E-13	0.	0.	0.	0.	8.66E-05	0.
53	5.90	0.	7.31E-05	0.	0.	0	0	0.	0.	3.73E-07	8.85E-13	0.	0.	0.	0.	7.31E-05	0.
54	5.80	0.	6.12E-05	0.	0.	0	0	0.	0.	3.76E-07	9.31E-13	0.	0.	0.	0.	6.12E-05	0.
55	5.70	0.	5.12E-05	0.	0.	0	0	0.	0.	3.79E-07	9.82E-13	0.	0.	0.	0.	5.12E-05	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON S-R		TEMPERATURE (DEGREES K)		5000.		DENSITY (GM/CC)		1.293E-05 (10.0E-03 NORMAL)		O		TOTAL AIR	
ENERGY	RANDS	1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	BETA	GAMMA	NO	NO	PHOTO-DET (IONS)	M	P.E.	P.E.
52	5.60	3.69E-05	0.	0.	3.	3.85E-05	3.61E-04	0.	0.	3.18E-07	1.03E-12	0.	4.37E-04
53	5.50	3.48E-05	0.	0.	0.	5.13E-05	4.45E-04	0.	0.	3.20E-07	1.09E-12	0.	5.29E-04
54	5.42	3.27E-05	0.	0.	0.	3.80E-05	3.52E-04	0.	0.	3.72E-07	1.15E-12	0.	2.29E-04
55	5.30	2.87E-05	0.	0.	0.	3.91E-05	3.65E-04	0.	0.	3.24E-07	1.22E-12	0.	4.31E-04
56	5.20	1.45E-05	0.	0.	0.	3.76E-05	1.36E-04	0.	0.	3.26E-07	1.26E-12	0.	1.91E-04
57	5.10	1.47E-05	0.	0.	0.	3.34E-05	1.97E-04	0.	2.62E-09	3.29E-07	1.37E-12	0.	2.41E-04
58	5.07	1.00E-05	0.	0.	0.	3.61E-05	1.64E-04	0.	2.62E-09	3.31E-07	1.45E-12	0.	2.01E-04
59	4.90	8.20E-06	0.	0.	0.	2.61E-05	1.15E-04	0.	2.62E-09	3.37E-07	1.53E-12	0.	1.52E-04
60	4.87	8.41E-06	0.	0.	0.	2.63E-05	1.15E-04	0.	2.62E-09	3.37E-07	1.46E-12	0.	1.50E-04
61	4.70	8.26E-06	0.	0.	0.	2.23E-05	6.93E-05	0.	2.62E-09	3.48E-07	1.75E-12	0.	1.00E-04
62	4.60	8.83E-06	0.	0.	0.	2.15E-05	6.44E-05	0.	2.62E-09	3.48E-07	1.85E-12	0.	1.05E-04
63	4.50	7.83E-06	0.	5.02E-03	0.	1.64E-05	3.90E-05	0.	2.62E-09	3.48E-07	2.00E-12	0.	4.36E-05
64	4.40	6.97E-06	0.	4.17E-03	0.	1.49E-05	3.57E-05	0.	2.62E-09	3.48E-07	2.14E-12	0.	5.60E-05
65	4.30	5.54E-06	0.	4.17E-03	0.	1.20E-05	1.45E-05	0.	2.62E-09	3.51E-07	2.29E-12	0.	3.25E-05
66	4.20	4.54E-06	0.	2.90E-03	0.	1.16E-05	1.45E-05	0.	2.62E-09	3.54E-07	2.49E-12	0.	3.13E-05
67	4.10	3.73E-06	0.	4.24E-03	0.	9.32E-06	3.51E-06	0.	2.62E-09	3.54E-07	2.49E-12	0.	1.70E-05
68	4.00	2.95E-06	0.	2.93E-03	0.	7.92E-06	2.37E-06	0.	2.62E-09	3.55E-07	2.85E-12	0.	1.40E-05
69	3.90	2.07E-06	0.	2.04E-03	0.	5.78E-06	1.35E-06	0.	2.62E-09	3.55E-07	3.02E-12	0.	9.71E-06
70	3.80	2.19E-06	0.	1.69E-03	0.	5.91E-06	0.	0.	2.62E-09	3.54E-07	3.35E-12	0.	8.54E-06
71	3.70	1.45E-06	0.	1.04E-03	0.	3.62E-06	0.	0.	2.62E-09	3.48E-07	3.60E-12	0.	5.82E-06
72	3.60	1.13E-06	0.	9.43E-04	0.	5.16E-06	0.	0.	2.62E-09	3.26E-07	3.91E-12	0.	5.40E-06
73	3.50	9.03E-07	0.	2.40E-03	0.	4.13E-06	2.26E-06	0.	2.62E-09	2.96E-07	4.25E-12	0.	3.75E-06
74	3.40	6.49E-07	0.	5.91E-03	0.	6.17E-06	2.50E-06	0.	2.62E-09	1.72E-07	4.61E-12	0.	3.40E-06
75	3.30	4.78E-07	0.	9.12E-03	0.	5.45E-06	1.48E-06	0.	2.62E-09	1.72E-07	5.05E-12	0.	2.23E-06
76	3.20	3.40E-07	0.	3.02E-03	0.	5.34E-06	1.44E-06	0.	2.62E-09	1.72E-07	5.35E-12	0.	2.04E-06
77	3.10	2.72E-07	0.	2.81E-03	0.	1.01E-06	1.07E-06	0.	2.62E-09	1.72E-07	6.10E-12	0.	1.55E-06
78	3.00	2.00E-07	0.	1.07E-03	0.	9.99E-06	8.33E-07	0.	2.62E-09	1.72E-07	6.75E-12	0.	1.23E-06
79	2.90	1.35E-07	0.	6.66E-03	0.	9.99E-06	8.33E-07	0.	2.62E-09	1.72E-07	7.40E-12	0.	7.40E-07
80	2.80	1.24E-07	0.	2.98E-03	0.	9.99E-06	8.33E-07	0.	2.62E-09	1.72E-07	8.31E-12	0.	5.09E-07
81	2.70	5.71E-08	0.	1.21E-03	0.	4.51E-06	2.07E-07	0.	2.62E-09	1.72E-07	9.23E-12	0.	3.12E-07
82	2.60	1.00E-08	0.	5.73E-03	0.	5.62E-06	2.18E-08	0.	2.62E-09	1.72E-07	1.05E-11	0.	2.17E-07
83	2.50	1.00E-09	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	1.15E-11	0.	1.62E-07
84	2.40	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	1.32E-11	0.	1.88E-07
85	2.30	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	1.50E-11	0.	2.84E-07
86	2.20	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	1.75E-11	0.	3.31E-07
87	2.10	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	1.97E-11	0.	6.06E-07
88	2.00	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	2.20E-11	0.	4.21E-07
89	1.90	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	2.42E-11	0.	2.12E-06
90	1.80	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	2.64E-11	0.	2.10E-06
91	1.70	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	2.86E-11	0.	2.19E-06
92	1.60	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	3.08E-11	0.	1.63E-06
93	1.50	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	3.30E-11	0.	1.80E-06
94	1.40	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	3.52E-11	0.	1.40E-06
95	1.30	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	3.74E-11	0.	1.37E-06
96	1.20	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	3.96E-11	0.	1.91E-06
97	1.10	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	4.18E-11	0.	1.06E-06
98	1.00	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	4.40E-11	0.	1.15E-06
99	0.90	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	4.62E-11	0.	7.98E-07
100	0.80	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	4.84E-11	0.	4.94E-07
101	0.70	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	5.06E-11	0.	2.27E-07
102	0.60	0.	0.	1.02E-03	0.	3.54E-06	3.44E-10	0.	2.62E-09	1.72E-07	5.28E-11	0.	4.21E-07

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY E.V.	02 S-R CONT.	TEMPERATURE (DEGREES F.)	NO PETA	NO SARMA	DENSITY (GM/CC)	10.0E-04 NORMAL			TOTAL AIR
						NO	0- PHOTO-DET (IONS)	FREE-FREE P.E.	
1 0.70	0.	3.80E-04	0.	0.	0.	0.	5.30E-09	4.60E-15	0.
2 0.80	0.	4.45E-04	0.	0.	0.	0.	4.40E-09	4.73E-15	0.
3 0.90	0.	5.00E-04	0.	0.	0.	0.	3.90E-09	4.87E-15	0.
4 1.00	0.	5.55E-04	0.	0.	0.	0.	3.40E-09	5.01E-15	0.
5 1.10	0.	6.10E-04	0.	0.	0.	0.	2.90E-09	5.15E-15	0.
6 1.20	0.	6.65E-04	0.	0.	0.	0.	2.40E-09	5.29E-15	0.
7 1.30	0.	7.20E-04	0.	0.	0.	0.	1.90E-09	5.43E-15	0.
8 1.40	0.	7.75E-04	0.	0.	0.	0.	1.40E-09	5.57E-15	0.
9 1.50	0.	8.30E-04	0.	0.	0.	0.	9.00E-10	5.71E-15	0.
10 1.60	0.	8.85E-04	0.	0.	0.	0.	7.60E-10	5.85E-15	0.
11 1.70	0.	9.40E-04	0.	0.	0.	0.	6.20E-10	5.99E-15	0.
12 1.80	0.	9.95E-04	0.	0.	0.	0.	4.80E-10	6.13E-15	0.
13 1.90	0.	1.05E-03	0.	0.	0.	0.	3.40E-10	6.27E-15	0.
14 2.00	0.	1.10E-03	0.	0.	0.	0.	2.00E-10	6.41E-15	0.
15 2.10	0.	1.15E-03	0.	0.	0.	0.	1.60E-10	6.55E-15	0.
16 2.20	0.	1.20E-03	0.	0.	0.	0.	1.20E-10	6.69E-15	0.
17 2.30	0.	1.25E-03	0.	0.	0.	0.	8.00E-11	6.83E-15	0.
18 2.40	0.	1.30E-03	0.	0.	0.	0.	6.40E-11	6.97E-15	0.
19 2.50	0.	1.35E-03	0.	0.	0.	0.	4.80E-11	7.11E-15	0.
20 2.60	0.	1.40E-03	0.	0.	0.	0.	3.20E-11	7.25E-15	0.
21 2.70	0.	1.45E-03	0.	0.	0.	0.	2.00E-11	7.39E-15	0.
22 2.80	0.	1.50E-03	0.	0.	0.	0.	1.20E-11	7.53E-15	0.
23 2.90	0.	1.55E-03	0.	0.	0.	0.	8.00E-12	7.67E-15	0.
24 3.00	0.	1.60E-03	0.	0.	0.	0.	5.60E-12	7.81E-15	0.
25 3.10	0.	1.65E-03	0.	0.	0.	0.	3.20E-12	7.95E-15	0.
26 3.20	0.	1.70E-03	0.	0.	0.	0.	2.00E-12	8.09E-15	0.
27 3.30	0.	1.75E-03	0.	0.	0.	0.	1.20E-12	8.23E-15	0.
28 3.40	0.	1.80E-03	0.	0.	0.	0.	8.00E-13	8.37E-15	0.
29 3.50	0.	1.85E-03	0.	0.	0.	0.	5.60E-13	8.51E-15	0.
30 3.60	0.	1.90E-03	0.	0.	0.	0.	3.20E-13	8.65E-15	0.
31 3.70	0.	1.95E-03	0.	0.	0.	0.	2.00E-13	8.79E-15	0.
32 3.80	0.	2.00E-03	0.	0.	0.	0.	1.20E-13	8.93E-15	0.
33 3.90	0.	2.05E-03	0.	0.	0.	0.	8.00E-14	9.07E-15	0.
34 4.00	0.	2.10E-03	0.	0.	0.	0.	5.60E-14	9.21E-15	0.
35 4.10	0.	2.15E-03	0.	0.	0.	0.	3.20E-14	9.35E-15	0.
36 4.20	0.	2.20E-03	0.	0.	0.	0.	2.00E-14	9.49E-15	0.
37 4.30	0.	2.25E-03	0.	0.	0.	0.	1.20E-14	9.63E-15	0.
38 4.40	0.	2.30E-03	0.	0.	0.	0.	8.00E-15	9.77E-15	0.
39 4.50	0.	2.35E-03	0.	0.	0.	0.	5.60E-15	9.91E-15	0.
40 4.60	0.	2.40E-03	0.	0.	0.	0.	3.20E-15	1.005E-14	0.
41 4.70	0.	2.45E-03	0.	0.	0.	0.	2.00E-15	1.019E-14	0.
42 4.80	0.	2.50E-03	0.	0.	0.	0.	1.20E-15	1.033E-14	0.
43 4.90	0.	2.55E-03	0.	0.	0.	0.	8.00E-16	1.047E-14	0.
44 5.00	0.	2.60E-03	0.	0.	0.	0.	5.60E-16	1.061E-14	0.
45 5.10	0.	2.65E-03	0.	0.	0.	0.	3.20E-16	1.075E-14	0.
46 5.20	0.	2.70E-03	0.	0.	0.	0.	2.00E-16	1.089E-14	0.
47 5.30	0.	2.75E-03	0.	0.	0.	0.	1.20E-16	1.103E-14	0.
48 5.40	0.	2.80E-03	0.	0.	0.	0.	8.00E-17	1.117E-14	0.
49 5.50	0.	2.85E-03	0.	0.	0.	0.	5.60E-17	1.131E-14	0.
50 5.60	0.	2.90E-03	0.	0.	0.	0.	3.20E-17	1.145E-14	0.
51 5.70	0.	2.95E-03	0.	0.	0.	0.	2.00E-17	1.159E-14	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)				5000.				DENSITY (GM/CC) 1.293E-06 (10.0E-04 NORMAL)				TOTAL AIR					
PHOTON 32 S-R ENERGY BANDS		N2 1ST POS. 2ND POS.		N2+ 1ST NEG. BETA		NO GAMMA		NO VIB-ROT		NO 2		D- PHOTO-DET (IONS)		FREE-FREE M P.E.		D F.F.	
52	1.40	3.84E-07	0.	0.	1.19E-06	1.12E-05	0.	0.	5.75E-09	3.24E-14	0.	0.	1.28E-05	1.28E-05			
53	1.50	3.69E-07	0.	0.	1.58E-06	1.37E-05	0.	0.	5.78E-09	3.45E-14	0.	0.	1.56E-05	1.56E-05			
54	1.60	3.41E-07	0.	0.	1.17E-06	4.86E-06	0.	0.	5.81E-09	3.61E-14	0.	0.	1.40E-05	1.40E-05			
55	1.70	2.95E-07	0.	0.	1.21E-06	1.12E-05	0.	0.	5.85E-09	3.82E-14	0.	0.	1.27E-05	1.27E-05			
56	1.80	2.68E-07	0.	0.	1.15E-06	4.19E-06	0.	0.	5.89E-09	4.05E-14	0.	0.	1.14E-05	1.14E-05			
57	1.90	2.39E-07	0.	0.	1.03E-06	5.95E-06	0.	0.	5.94E-09	4.28E-14	0.	0.	1.01E-05	1.01E-05			
58	2.00	2.10E-07	0.	0.	9.04E-07	5.67E-06	0.	0.	5.99E-09	4.53E-14	0.	0.	8.99E-06	8.99E-06			
59	2.10	1.83E-07	0.	0.	7.08E-07	2.14E-06	0.	0.	6.04E-09	4.80E-14	0.	0.	7.94E-06	7.94E-06			
60	2.20	1.56E-07	0.	0.	5.07E-07	1.20E-06	0.	0.	6.09E-09	5.07E-14	0.	0.	6.89E-06	6.89E-06			
61	2.30	1.29E-07	0.	0.	4.45E-07	1.15E-06	0.	0.	6.14E-09	5.34E-14	0.	0.	5.84E-06	5.84E-06			
62	2.40	1.02E-07	0.	0.	3.78E-07	4.45E-07	0.	0.	6.19E-09	5.61E-14	0.	0.	4.79E-06	4.79E-06			
63	2.50	8.8E-08	0.	0.	3.15E-07	4.45E-07	0.	0.	6.24E-09	5.88E-14	0.	0.	3.74E-06	3.74E-06			
64	2.60	7.2E-08	0.	0.	2.52E-07	4.45E-07	0.	0.	6.29E-09	6.15E-14	0.	0.	2.69E-06	2.69E-06			
65	2.70	5.6E-08	0.	0.	1.89E-07	4.45E-07	0.	0.	6.34E-09	6.42E-14	0.	0.	1.64E-06	1.64E-06			
66	2.80	4.0E-08	0.	0.	1.26E-07	4.45E-07	0.	0.	6.39E-09	6.69E-14	0.	0.	5.39E-07	5.39E-07			
67	2.90	3.49E-08	0.	0.	9.03E-07	2.14E-06	0.	0.	6.44E-09	6.96E-14	0.	0.	4.34E-07	4.34E-07			
68	3.00	3.07E-08	0.	0.	7.08E-07	1.20E-06	0.	0.	6.49E-09	7.23E-14	0.	0.	3.29E-07	3.29E-07			
69	3.10	2.58E-08	0.	0.	5.07E-07	1.15E-06	0.	0.	6.54E-09	7.50E-14	0.	0.	2.24E-07	2.24E-07			
70	3.20	2.10E-08	0.	0.	4.45E-07	1.15E-06	0.	0.	6.59E-09	7.77E-14	0.	0.	1.19E-07	1.19E-07			
71	3.30	1.50E-08	0.	0.	3.78E-07	4.45E-07	0.	0.	6.64E-09	8.04E-14	0.	0.	1.14E-07	1.14E-07			
72	3.40	1.02E-08	0.	0.	3.15E-07	4.45E-07	0.	0.	6.69E-09	8.31E-14	0.	0.	1.09E-07	1.09E-07			
73	3.50	9.41E-09	0.	0.	2.52E-07	4.45E-07	0.	0.	6.74E-09	8.58E-14	0.	0.	9.84E-08	9.84E-08			
74	3.60	6.97E-09	0.	0.	1.89E-07	4.45E-07	0.	0.	6.79E-09	8.85E-14	0.	0.	8.79E-08	8.79E-08			
75	3.70	4.98E-09	0.	0.	1.26E-07	4.45E-07	0.	0.	6.84E-09	9.12E-14	0.	0.	7.74E-08	7.74E-08			
76	3.80	3.55E-09	0.	0.	9.3E-08	4.45E-08	0.	0.	6.89E-09	9.39E-14	0.	0.	6.69E-08	6.69E-08			
77	3.90	2.64E-09	0.	0.	7.5E-08	3.35E-08	0.	0.	6.94E-09	9.66E-14	0.	0.	5.64E-08	5.64E-08			
78	4.00	2.08E-09	0.	0.	5.8E-08	2.35E-08	0.	0.	6.99E-09	9.93E-14	0.	0.	4.59E-08	4.59E-08			
79	4.10	1.41E-09	0.	0.	4.0E-08	1.35E-08	0.	0.	7.04E-09	1.02E-13	0.	0.	3.54E-08	3.54E-08			
80	4.20	1.02E-09	0.	0.	2.3E-08	9.40E-09	0.	0.	7.09E-09	1.04E-13	0.	0.	2.49E-08	2.49E-08			
81	4.30	5.95E-10	0.	0.	1.1E-08	2.33E-09	0.	0.	7.14E-09	1.07E-13	0.	0.	1.44E-08	1.44E-08			
82	4.40	1.80E-10	0.	0.	5.2E-11	2.91E-10	0.	0.	7.19E-09	1.10E-13	0.	0.	3.39E-09	3.39E-09			
83	4.50	1.11E-11	0.	0.	8.6E-11	1.21E-10	0.	0.	7.24E-09	1.13E-13	0.	0.	2.34E-09	2.34E-09			
84	4.60	0.	0.	0.	1.8E-10	1.05E-11	0.	0.	7.29E-09	1.16E-13	0.	0.	1.29E-09	1.29E-09			
85	4.70	0.	0.	0.	0.	0.	0.	0.	7.34E-09	1.19E-13	0.	0.	2.24E-09	2.24E-09			
86	4.80	0.	0.	0.	1.4E-09	1.41E-09	0.	0.	7.39E-09	1.22E-13	0.	0.	1.19E-09	1.19E-09			
87	4.90	0.	0.	0.	9.9E-09	9.9E-09	0.	0.	7.44E-09	1.25E-13	0.	0.	1.14E-09	1.14E-09			
88	5.00	0.	0.	0.	7.2E-09	7.2E-09	0.	0.	7.49E-09	1.28E-13	0.	0.	1.09E-09	1.09E-09			
89	5.10	0.	0.	0.	4.9E-09	4.9E-09	0.	0.	7.54E-09	1.31E-13	0.	0.	9.84E-10	9.84E-10			
90	5.20	0.	0.	0.	3.1E-09	3.1E-09	0.	0.	7.59E-09	1.34E-13	0.	0.	8.79E-10	8.79E-10			
91	5.30	0.	0.	0.	1.7E-09	1.7E-09	0.	0.	7.64E-09	1.37E-13	0.	0.	7.74E-10	7.74E-10			
92	5.40	0.	0.	0.	8.5E-10	8.5E-10	0.	0.	7.69E-09	1.40E-13	0.	0.	6.69E-10	6.69E-10			
93	5.50	0.	0.	0.	3.7E-10	3.7E-10	0.	0.	7.74E-09	1.43E-13	0.	0.	5.64E-10	5.64E-10			
94	5.60	0.	0.	0.	1.6E-10	1.6E-10	0.	0.	7.79E-09	1.46E-13	0.	0.	4.59E-10	4.59E-10			
95	5.70	0.	0.	0.	2.3E-10	2.3E-10	0.	0.	7.84E-09	1.49E-13	0.	0.	3.54E-10	3.54E-10			
96	5.80	0.	0.	0.	1.2E-10	1.2E-10	0.	0.	7.89E-09	1.52E-13	0.	0.	2.49E-10	2.49E-10			
97	5.90	0.	0.	0.	7.9E-11	7.9E-11	0.	0.	7.94E-09	1.55E-13	0.	0.	1.44E-10	1.44E-10			
98	6.00	0.	0.	0.	4.6E-11	4.6E-11	0.	0.	7.99E-09	1.58E-13	0.	0.	3.39E-10	3.39E-10			
99	6.10	0.	0.	0.	2.0E-11	2.0E-11	0.	0.	8.04E-09	1.61E-13	0.	0.	2.34E-10	2.34E-10			
100	6.20	0.	0.	0.	9.6E-12	9.6E-12	0.	0.	8.09E-09	1.64E-13	0.	0.	1.29E-10	1.29E-10			
101	6.30	0.	0.	0.	5.0E-12	5.0E-12	0.	0.	8.14E-09	1.67E-13	0.	0.	1.24E-10	1.24E-10			
102	6.40	0.	0.	0.	2.6E-12	2.6E-12	0.	0.	8.19E-09	1.70E-13	0.	0.	1.19E-10	1.19E-10			

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		5000.	DENSITY (GM/CC)		1.293E-07 (10.0E-05 NORMAL)		NO		O- FREE-FREE W		O		TOTAL AIR	
PHOTON 02 S-R		02 S-R	NO		NO		2		PHOTO-DET (10RS)		P.E.		P.E.	
ENERGY BANDS		CONT.	NO		NO		2		PHOTO-DET (10RS)		P.E.		P.E.	
E.V.			NO		NO		2		PHOTO-DET (10RS)		P.E.		P.E.	
E.V.			NO		NO		2		PHOTO-DET (10RS)		P.E.		P.E.	
1	10.70	0.	4.48E-05	0.	0.	0.	0.	0.	9.25E-11	1.34E-16	0.	0.	4.48E-05	0.
2	10.60	0.	3.32E-05	0.	0.	0.	0.	0.	9.27E-11	1.34E-16	0.	0.	3.32E-05	0.
3	10.50	0.	2.98E-05	0.	0.	0.	0.	0.	9.28E-11	1.42E-16	0.	0.	2.98E-05	0.
4	10.40	0.	2.41E-05	0.	0.	0.	0.	0.	9.28E-11	1.46E-16	0.	0.	2.41E-05	0.
5	10.30	0.	1.73E-05	0.	0.	0.	0.	0.	9.30E-11	1.50E-16	0.	0.	1.73E-05	0.
6	10.20	0.	1.59E-05	0.	0.	0.	0.	0.	9.32E-11	1.52E-16	0.	0.	1.59E-05	0.
7	10.10	0.	1.33E-05	0.	0.	0.	0.	0.	9.33E-11	1.52E-16	0.	0.	1.33E-05	0.
8	10.00	0.	8.97E-06	0.	0.	0.	0.	0.	9.34E-11	1.44E-16	0.	0.	8.97E-06	0.
9	9.90	0.	8.70E-06	0.	0.	0.	0.	0.	9.34E-11	1.70E-16	0.	0.	8.70E-06	0.
10	9.80	0.	6.84E-06	0.	0.	0.	0.	0.	9.37E-11	1.75E-16	0.	0.	6.84E-06	0.
11	9.70	0.	4.42E-06	0.	0.	0.	0.	0.	9.39E-11	1.80E-16	0.	0.	4.42E-06	0.
12	9.60	0.	4.94E-06	0.	0.	0.	0.	0.	9.41E-11	1.80E-16	0.	0.	4.94E-06	0.
13	9.50	0.	5.09E-06	0.	0.	0.	0.	0.	9.43E-11	1.92E-16	0.	0.	5.09E-06	0.
14	9.40	0.	5.59E-06	0.	0.	0.	0.	0.	9.46E-11	1.98E-16	0.	0.	5.59E-06	0.
15	9.30	0.	6.06E-06	0.	0.	0.	0.	0.	9.49E-11	2.05E-16	0.	0.	6.06E-06	0.
16	9.20	0.	6.58E-06	0.	0.	0.	0.	0.	9.53E-11	2.12E-16	0.	0.	6.58E-06	0.
17	9.10	0.	8.12E-06	0.	0.	0.	0.	0.	9.56E-11	2.19E-16	0.	0.	8.12E-06	0.
18	9.00	0.	9.84E-06	0.	0.	0.	0.	0.	9.60E-11	2.24E-16	0.	0.	9.84E-06	0.
19	8.90	0.	1.16E-07	0.	0.	0.	0.	0.	9.63E-11	2.34E-16	0.	0.	1.16E-07	0.
20	8.80	0.	1.21E-07	0.	0.	0.	0.	0.	9.67E-11	2.42E-16	0.	0.	1.21E-07	0.
21	8.70	0.	1.15E-07	0.	0.	0.	0.	0.	9.70E-11	2.50E-16	0.	0.	1.15E-07	0.
22	8.60	0.	1.10E-07	0.	0.	0.	0.	0.	9.73E-11	2.59E-16	0.	0.	1.10E-07	0.
23	8.50	0.	1.05E-07	0.	0.	0.	0.	0.	9.77E-11	2.69E-16	0.	0.	1.05E-07	0.
24	8.40	0.	1.01E-07	0.	0.	0.	0.	0.	9.82E-11	2.78E-16	0.	0.	1.01E-07	0.
25	8.30	0.	9.64E-08	0.	0.	0.	0.	0.	9.87E-11	2.89E-16	0.	0.	9.64E-08	0.
26	8.20	0.	9.22E-08	0.	0.	0.	0.	0.	9.92E-11	2.99E-16	0.	0.	9.22E-08	0.
27	8.10	0.	8.80E-08	0.	0.	0.	0.	0.	1.00E-10	3.11E-16	0.	0.	8.80E-08	0.
28	8.00	0.	8.38E-08	0.	0.	0.	0.	0.	1.01E-10	3.22E-16	0.	0.	8.38E-08	0.
29	7.90	0.	7.92E-08	0.	0.	0.	0.	0.	1.01E-10	3.35E-16	0.	0.	7.92E-08	0.
30	7.80	0.	7.45E-08	0.	0.	0.	0.	0.	1.01E-10	3.48E-16	0.	0.	7.45E-08	0.
31	7.70	0.	6.98E-08	0.	0.	0.	0.	0.	1.02E-10	3.62E-16	0.	0.	6.98E-08	0.
32	7.60	0.	6.51E-08	0.	0.	0.	0.	0.	1.02E-10	3.76E-16	0.	0.	6.51E-08	0.
33	7.50	0.	6.03E-08	0.	0.	0.	0.	0.	1.03E-10	3.92E-16	0.	0.	6.03E-08	0.
34	7.40	0.	5.54E-08	0.	0.	0.	0.	0.	1.03E-10	4.08E-16	0.	0.	5.54E-08	0.
35	7.30	0.	5.05E-08	0.	0.	0.	0.	0.	1.04E-10	4.25E-16	0.	0.	5.05E-08	0.
36	7.20	0.	4.56E-08	0.	0.	0.	0.	0.	1.05E-10	4.43E-16	0.	0.	4.56E-08	0.
37	7.10	0.	4.13E-08	0.	0.	0.	0.	0.	1.05E-10	4.62E-16	0.	0.	4.13E-08	0.
38	7.00	0.	3.70E-08	0.	0.	0.	0.	0.	1.06E-10	4.82E-16	0.	0.	3.70E-08	0.
39	6.90	0.	3.26E-08	0.	0.	0.	0.	0.	1.07E-10	5.03E-16	0.	0.	3.26E-08	0.
40	6.80	0.	2.84E-08	0.	0.	0.	0.	0.	1.08E-10	5.26E-16	0.	0.	2.84E-08	0.
41	6.70	0.	2.43E-08	0.	0.	0.	0.	0.	1.09E-10	5.50E-16	0.	0.	2.43E-08	0.
42	6.60	0.	2.04E-08	0.	0.	0.	0.	0.	1.10E-10	5.75E-16	0.	0.	2.04E-08	0.
43	6.50	0.	1.64E-08	0.	0.	0.	0.	0.	1.11E-10	6.02E-16	0.	0.	1.64E-08	0.
44	6.40	0.	1.24E-08	0.	0.	0.	0.	0.	1.11E-10	6.31E-16	0.	0.	1.24E-08	0.
45	6.30	0.	8.99E-09	0.	0.	0.	0.	0.	1.12E-10	6.61E-16	0.	0.	8.99E-09	0.
46	6.20	0.	8.20E-09	0.	0.	0.	0.	0.	1.13E-10	6.94E-16	0.	0.	8.20E-09	0.
47	6.10	0.	7.41E-09	0.	0.	0.	0.	0.	1.14E-10	7.29E-16	0.	0.	7.41E-09	0.
48	6.00	0.	6.62E-09	0.	0.	0.	0.	0.	1.15E-10	7.66E-16	0.	0.	6.62E-09	0.
49	5.90	0.	5.83E-09	0.	0.	0.	0.	0.	1.15E-10	8.06E-16	0.	0.	5.83E-09	0.
50	5.80	0.	5.04E-09	0.	0.	0.	0.	0.	1.15E-10	8.48E-16	0.	0.	5.04E-09	0.
51	5.70	0.	4.25E-09	0.	0.	0.	0.	0.	1.06E-10	8.94E-16	0.	0.	4.25E-09	0.

TEMPERATURE (DEGREES K) 500G. DENSITY (GM/CC) 1.293E+07 (10.0E+05 NORMAL)

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ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		5000.		DENSITY (GM/CC) 1.293E-08 (10.0E-06 NORMAL)		NO		O-		FREE-FREE		M		TOTAL AIR	
PHOTON ENERGY BANDS E.V.		NO		BETA		NO		PHOTO-DET		P.E.		P.F.			
O2 S-R		O2 S-R		O2 S-R		O2 S-R		O2 S-R		O2 S-R		O2 S-R		O2 S-R	
CONT.		CONT.		CONT.		CONT.		CONT.		CONT.		CONT.		CONT.	
NO. 1		NO. 1		NO. 1		NO. 1		NO. 1		NO. 1		NO. 1		NO. 1	
1	10.70	0.	1.87E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2	19.60	0.	1.41E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3	10.50	0.	1.27E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4	10.40	0.	1.63E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5	10.30	0.	7.38E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6	10.20	0.	6.75E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7	10.10	0.	5.62E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8	10.00	0.	3.61E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9	9.90	0.	3.73E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10	9.80	0.	2.91E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	9.70	0.	1.97E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12	9.60	0.	2.10E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13	9.50	0.	1.37E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14	9.40	0.	5.62E-10	1.10E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15	9.30	0.	6.12E-10	1.06E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16	9.20	0.	6.62E-10	6.21E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17	9.10	0.	8.17E-10	6.61E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18	9.00	0.	9.91E-10	4.65E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19	8.90	0.	1.17E-09	3.60E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20	8.80	0.	1.21E-09	3.23E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	8.70	0.	1.14E-09	2.09E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22	8.60	0.	1.10E-09	2.11E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23	8.50	0.	1.06E-09	1.37E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24	8.40	0.	1.01E-09	1.26E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25	8.30	0.	9.70E-10	6.30E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26	8.20	0.	9.24E-10	7.71E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27	8.10	0.	8.66E-10	5.20E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28	8.00	0.	8.45E-10	4.70E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29	7.90	0.	7.87E-10	3.21E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30	7.80	0.	7.50E-10	2.96E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	7.70	0.	7.02E-10	2.09E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32	7.60	0.	6.55E-10	1.70E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33	7.50	0.	6.07E-10	1.28E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34	7.40	0.	5.59E-10	9.78E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35	7.30	0.	5.09E-10	7.71E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36	7.20	0.	4.61E-10	5.74E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37	7.10	0.	4.15E-10	4.65E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38	7.00	0.	3.52E-10	3.52E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39	6.90	0.	2.69E-10	2.69E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40	6.80	0.	2.12E-10	2.12E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	6.70	0.	1.53E-10	1.53E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42	6.60	0.	1.12E-10	1.12E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43	6.50	0.	6.99E-11	6.99E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44	6.40	0.	3.38E-11	3.38E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45	6.30	0.	3.85E-10	3.85E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46	6.20	0.	5.33E-12	5.33E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47	6.10	0.	1.79E-12	1.79E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48	6.00	0.	3.65E-13	3.65E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49	5.90	0.	2.52E-14	2.52E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50	5.80	0.	3.47E-11	3.47E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	5.70	0.	3.41E-11	3.41E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)				5000.	DENSITY (GM/CC)		1.293E-08	(10. DE-06 NORM-4L)				
PHOTON O2 S-R	N2	N2+	NO	AD	NO	NO	D-	FREE-FREE	N	O	TOTAL AIR	
ENERGY BANDS	1ST POS.	2ND POS.	1ST NEG.	BETA	GAMMA	VIB-ROT	PHOTO-DET (IONS)		P.E.	P.E.		
52	5.60	3.91E-11	0.	0.	6.76E-10	6.35E-09	0.	1.71E-12	2.00E-17	0.	7.04E-09	
53	5.50	3.09E-11	0.	0.	9.01E-10	7.76E-09	0.	1.72E-12	2.98E-17	0.	8.71E-09	
54	5.40	3.47E-11	0.	0.	6.67E-10	2.78E-09	0.	1.72E-12	3.13E-17	0.	7.07E-09	
55	5.30	3.04E-11	0.	0.	6.67E-10	6.37E-09	0.	1.74E-12	3.31E-17	0.	7.00E-09	
56	5.20	1.79E-11	0.	0.	6.61E-10	2.38E-09	0.	1.75E-12	3.50E-17	0.	5.07E-09	
57	5.10	1.56E-11	0.	0.	5.87E-10	3.38E-09	0.	1.76E-12	3.71E-17	0.	3.99E-09	
58	5.00	1.06E-11	0.	0.	4.57E-10	2.04E-09	0.	1.78E-12	3.94E-17	0.	3.35E-09	
59	4.90	8.79E-12	0.	0.	4.57E-10	2.04E-09	0.	1.78E-12	4.19E-17	0.	2.53E-09	
60	4.80	8.91E-12	0.	0.	4.57E-10	2.02E-09	0.	1.81E-12	4.45E-17	0.	2.50E-09	
61	4.70	8.74E-12	0.	0.	4.03E-10	1.22E-09	0.	1.82E-12	4.74E-17	0.	1.53E-09	
62	4.60	9.39E-12	0.	0.	3.77E-10	1.31E-09	0.	1.84E-12	5.06E-17	0.	1.49E-09	
63	4.50	9.29E-12	0.	1.69E-12	2.28E-10	6.84E-10	0.	1.85E-12	5.41E-17	0.	9.85E-10	
64	4.40	7.38E-12	0.	9.57E-12	2.62E-10	6.24E-10	0.	1.87E-12	5.78E-17	0.	9.09E-10	
65	4.30	5.87E-12	0.	1.21E-11	2.11E-10	2.54E-10	0.	1.88E-12	6.20E-17	0.	8.67E-10	
66	4.20	4.40E-12	0.	8.69E-11	2.03E-10	2.54E-10	0.	1.89E-12	6.65E-17	0.	5.52E-12	
67	4.10	3.98E-12	0.	1.23E-11	1.84E-10	6.15E-11	0.	1.90E-12	7.13E-17	0.	2.44E-10	
68	4.00	3.18E-12	0.	1.14E-11	1.45E-10	4.15E-11	0.	1.91E-12	7.70E-17	0.	3.01E-10	
69	3.90	2.19E-12	0.	5.52E-11	1.01E-10	2.31E-11	0.	1.92E-12	8.31E-17	0.	2.09E-10	
70	3.80	2.22E-12	0.	4.93E-11	4.64E-10	1.04E-10	0.	1.93E-12	8.99E-17	0.	6.21E-10	
71	3.70	1.53E-12	0.	1.17E-10	7.04E-10	6.34E-11	0.	1.94E-12	9.74E-17	0.	2.55E-11	
72	3.60	1.20E-12	0.	2.74E-11	2.04E-10	7.00E-11	0.	1.95E-12	1.06E-16	0.	3.90E-11	
73	3.50	9.50E-13	0.	6.98E-11	2.31E-09	3.97E-11	0.	1.96E-12	1.15E-16	0.	2.42E-11	
74	3.40	7.08E-13	0.	1.74E-11	5.44E-11	3.35E-11	0.	1.97E-12	1.25E-16	0.	3.73E-11	
75	3.30	5.08E-13	0.	2.68E-11	4.83E-10	2.59E-11	0.	1.98E-12	1.35E-16	0.	5.37E-11	
76	3.20	2.88E-13	0.	9.79E-12	2.94E-09	2.53E-11	0.	1.99E-12	1.45E-16	0.	3.02E-09	
77	3.10	2.89E-13	0.	8.18E-12	5.68E-11	1.88E-11	0.	1.99E-12	1.55E-16	0.	6.48E-11	
78	3.00	2.12E-13	0.	3.13E-12	5.14E-10	1.43E-11	0.	1.99E-12	1.66E-16	0.	5.32E-10	
79	2.90	1.47E-13	0.	1.94E-12	5.91E-10	7.93E-12	0.	1.99E-12	1.77E-16	0.	6.02E-10	
80	2.80	1.76E-13	0.	2.45E-13	5.55E-11	3.45E-12	0.	1.99E-12	1.88E-16	0.	8.10E-11	
81	2.70	6.08E-14	0.	3.58E-13	2.55E-10	1.27E-12	0.	1.99E-12	2.01E-16	0.	2.55E-10	
82	2.60	1.91E-14	0.	1.66E-13	3.14E-11	3.73E-13	0.	1.99E-12	2.15E-16	0.	3.29E-11	
83	2.50	1.13E-15	0.	2.96E-14	9.37E-12	6.88E-14	0.	1.99E-12	2.31E-16	0.	1.04E-11	
84	2.40	0.	0.	3.20E-12	0.	1.98E-11	5.98E-15	0.	1.99E-12	2.48E-16	0.	2.34E-11
85	2.30	0.	0.	3.17E-11	0.	0.	0.	0.	1.99E-12	2.65E-16	0.	3.26E-11
86	2.20	0.	0.	4.35E-11	0.	0.	0.	0.	1.99E-12	2.83E-16	0.	4.65E-11
87	2.10	0.	0.	1.25E-10	0.	0.	0.	0.	1.99E-12	3.02E-16	0.	1.24E-10
88	2.00	0.	0.	1.72E-10	0.	0.	0.	0.	1.99E-12	3.22E-16	0.	1.52E-10
89	1.90	0.	0.	5.70E-10	0.	0.	0.	0.	1.99E-12	3.43E-16	0.	5.71E-10
90	1.80	0.	0.	5.64E-10	0.	0.	0.	0.	1.99E-12	3.65E-16	0.	5.67E-10
91	1.70	0.	0.	5.94E-10	0.	0.	0.	0.	1.99E-12	3.88E-16	0.	5.94E-10
92	1.60	0.	0.	4.36E-10	0.	0.	0.	0.	1.99E-12	4.12E-16	0.	4.37E-10
93	1.50	0.	0.	5.08E-10	0.	0.	0.	0.	1.99E-12	4.37E-16	0.	5.08E-10
94	1.40	0.	0.	7.09E-10	0.	0.	0.	0.	1.99E-12	4.63E-16	0.	7.09E-10
95	1.30	0.	0.	3.98E-10	0.	0.	0.	0.	1.99E-12	4.90E-16	0.	3.98E-10
96	1.20	0.	0.	5.58E-10	0.	0.	0.	0.	1.99E-12	5.18E-16	0.	5.58E-10
97	1.10	0.	0.	3.07E-10	0.	0.	0.	0.	1.99E-12	5.47E-16	0.	3.07E-10
98	1.00	0.	0.	3.31E-10	0.	0.	0.	0.	1.99E-12	5.77E-16	0.	3.31E-10
99	0.90	0.	0.	2.25E-10	0.	0.	0.	0.	1.99E-12	6.08E-16	0.	2.25E-10
100	0.80	0.	0.	9.81E-11	0.	0.	0.	0.	1.99E-12	6.40E-16	0.	9.81E-11
101	0.70	0.	0.	2.95E-11	0.	0.	0.	0.	1.99E-12	6.73E-16	0.	2.95E-11
102	0.60	0.	0.	2.25E-11	0.	0.	0.	0.	1.99E-12	7.08E-16	0.	2.25E-11

TEMPERATURE (DEGREES K) 5000. DENSITY (GM/CC) 1.293E-09 (10.0E-07 NORMAL)

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ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-09 (10.0E-07 NORMAL)		0		TOTAL AIR	
ENERGY BANDS	N2	1ST POS.	2ND POS.	N2	BETA	NO	NO	NO	NO	P.E.	P.E.
52	5.60	3.91E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.
53	5.50	3.69E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.
54	5.40	3.47E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.
55	5.30	3.04E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.
56	5.20	1.79E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.
57	5.10	1.56E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.
58	5.00	1.38E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.
59	4.90	8.78E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
60	4.80	8.92E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	4.70	8.75E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
62	4.60	9.36E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
63	4.50	8.30E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
64	4.40	7.39E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
65	4.30	5.68E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
66	4.20	4.81E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
67	4.10	3.96E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
68	4.00	3.13E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
69	3.90	2.19E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
70	3.80	2.22E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	3.70	1.53E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
72	3.60	1.20E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.
73	3.50	9.57E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
74	3.40	7.07E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
75	3.30	5.07E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
76	3.20	3.61E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
77	3.10	2.89E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
78	3.00	2.12E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
79	2.90	1.43E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
80	2.80	1.29E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
81	2.70	6.06E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.
82	2.60	1.91E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.
83	2.50	1.13E-17	0.	0.	0.	0.	0.	0.	0.	0.	0.
84	2.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
85	2.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
86	2.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
87	2.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
88	2.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
89	1.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
90	1.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
91	1.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
92	1.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
93	1.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
94	1.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95	1.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
96	1.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
97	1.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
98	1.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
99	0.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
100	0.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
101	0.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
102	0.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)			6000.			DENSITY (GM/CC) 1.293E-02 (1.0E-01 NORMAL)		
PHOTON ENERGY E.V.	NO. 1	NO. 2	BETA	GAMMA	NO. 2	0- PHOTO-DET (IONS)	FREE-FREE N P.E.	0 TOTAL AIR P.E.
1 10.70 0.	0.	1.30E 01	0.	0.	0.	4.10E-02	6.30E-08	1.31E-07 2.92E-06 1.30E 01
2 10.80 0.	0.	1.02E 01	0.	0.	0.	4.50E-02	6.57E-08	1.01E-07 2.92E-06 1.03E 01
3 10.90 0.	0.	9.45E 00	0.	0.	0.	4.51E-02	6.76E-08	1.02E-07 2.93E-06 9.51E 00
4 10.40 0.	0.	7.91E 00	0.	0.	0.	4.51E-02	6.95E-08	1.02E-07 2.94E-06 7.96E 00
5 10.30 0.	0.	5.95E 00	0.	0.	0.	4.52E-02	7.16E-08	1.02E-07 2.94E-06 6.00E 00
6 10.20 0.	0.	5.60E 00	0.	0.	0.	4.52E-02	7.35E-08	1.02E-07 2.95E-06 5.65E 00
7 10.10 0.	0.	4.80E 00	0.	0.	0.	4.53E-02	7.60E-08	1.03E-07 2.95E-06 4.84E 00
8 10.00 0.	0.	3.46E 00	0.	0.	0.	4.54E-02	7.83E-08	1.03E-07 2.96E-06 3.50E 00
9 9.90 0.	0.	3.43E 00	0.	0.	0.	4.54E-02	8.07E-08	1.03E-07 2.97E-06 3.47E 00
10 9.80 0.	0.	2.79E 00	0.	0.	0.	4.55E-02	8.32E-08	1.03E-07 2.97E-06 2.84E 00
11 9.70 0.	0.	2.00E 00	0.	0.	0.	4.56E-02	8.50E-08	1.04E-07 2.98E-06 2.05E 00
12 9.60 0.	0.	2.14E 00	0.	0.	0.	4.57E-02	8.80E-08	1.04E-07 2.99E-06 2.10E 00
13 9.50 0.	0.	2.20E 01	0.	0.	0.	4.58E-02	9.14E-08	1.04E-07 2.99E-06 2.35E 01
14 9.40 0.	0.	2.42E 01	0.	0.	0.	4.59E-02	9.44E-08	1.04E-07 2.99E-06 2.54E 01
15 9.30 0.	0.	2.63E 01	0.	0.	0.	4.61E-02	9.74E-08	1.05E-07 3.00E-06 2.70E 01
16 9.20 0.	0.	2.85E 01	0.	0.	0.	4.63E-02	1.01E-07	2.74E-08 3.01E-06 2.94E 01
17 9.10 0.	0.	3.50E 01	0.	0.	0.	4.64E-02	1.04E-07	2.72E-08 3.01E-06 3.59E 01
18 9.00 0.	0.	4.23E 01	0.	0.	0.	4.66E-02	1.08E-07	2.71E-08 3.02E-06 4.29E 01
19 8.90 0.	0.	4.95E 01	0.	0.	0.	4.68E-02	1.11E-07	2.70E-08 3.02E-06 5.01E 01
20 8.80 0.	0.	5.15E 01	0.	0.	0.	4.69E-02	1.15E-07	2.69E-08 3.03E-06 5.20E 01
21 8.70 0.	0.	4.92E 01	0.	0.	0.	4.71E-02	1.19E-07	2.67E-08 3.04E-06 4.90E 01
22 8.60 0.	0.	4.70E 01	0.	0.	0.	4.73E-02	1.23E-07	2.66E-08 3.04E-06 4.74E 01
23 8.50 0.	0.	4.53E 01	0.	0.	0.	4.74E-02	1.26E-07	2.65E-08 3.05E-06 4.55E 01
24 8.40 0.	0.	4.37E 01	0.	0.	0.	4.77E-02	1.32E-07	2.64E-08 3.05E-06 4.40E 01
25 8.30 0.	0.	4.16E 01	0.	0.	0.	4.79E-02	1.37E-07	2.62E-08 3.07E-06 4.20E 01
26 8.20 0.	0.	4.00E 01	0.	0.	0.	4.82E-02	1.42E-07	2.61E-08 3.12E-06 4.02E 01
27 8.10 0.	0.	3.64E 01	0.	0.	0.	4.84E-02	1.46E-07	2.59E-08 3.16E-06 3.86E 01
28 8.00 0.	0.	3.68E 01	0.	0.	0.	4.87E-02	1.53E-07	2.57E-08 3.20E-06 3.69E 01
29 7.90 0.	0.	3.49E 01	0.	0.	0.	4.89E-02	1.59E-07	2.55E-08 3.24E-06 3.51E 01
30 7.80 0.	0.	3.31E 01	0.	0.	0.	4.92E-02	1.65E-07	2.54E-08 3.29E-06 3.32E 01
31 7.70 0.	0.	3.12E 01	0.	0.	0.	4.94E-02	1.72E-07	2.52E-08 3.33E-06 3.13E 01
32 7.60 0.	0.	2.93E 01	0.	2.94E-04	0.	4.97E-02	1.79E-07	2.50E-08 3.37E-06 2.94E 01
33 7.50 0.	0.	2.74E 01	0.	2.93E-03	0.	4.99E-02	1.84E-07	2.48E-08 3.42E-06 2.74E 01
34 7.40 0.	0.	2.55E 01	0.	0.26E-03	0.	5.02E-02	1.94E-07	2.46E-08 3.46E-06 2.55E 01
35 7.30 0.	0.	2.35E 01	0.	5.26E-02	0.	5.05E-02	2.02E-07	2.45E-08 3.50E-06 2.37E 01
36 7.20 0.	0.	2.15E 01	0.	1.82E-01	0.	5.08E-02	2.10E-07	2.44E-08 3.54E-06 2.20E 01
37 7.10 0.	0.	2.01E 01	0.	2.77E-01	0.	5.12E-02	2.20E-07	2.41E-08 3.59E-06 2.04E 01
38 7.00 0.	0.	1.84E 02	0.	1.31E 00	0.	5.16E-02	2.30E-07	2.39E-08 3.63E-06 1.81E 00
39 6.90 0.	0.	8.30E-03	0.	4.49E-01	0.	5.20E-02	2.39E-07	2.38E-08 3.67E-06 1.79E 00
40 6.80 0.	0.	6.66E-03	0.	2.14E 00	0.	5.24E-02	2.50E-07	2.36E-08 3.72E-06 1.72E 00
41 6.70 0.	0.	5.17E-03	0.	3.81E 00	0.	5.28E-02	2.61E-07	2.34E-08 3.76E-06 1.66E 00
42 6.60 0.	0.	3.98E-03	0.	1.59E 00	0.	5.33E-02	2.74E-07	2.31E-08 3.81E-06 1.56E 00
43 6.50 0.	0.	2.62E-03	0.	3.33E 00	0.	5.37E-02	2.86E-07	2.28E-08 3.85E-06 1.47E 00
44 6.40 0.	0.	1.38E-03	0.	4.13E-02	0.	5.41E-02	3.00E-07	2.25E-08 3.89E-06 1.39E 00
45 6.30 0.	0.	6.73E-04	0.	1.70E-01	0.	5.45E-02	3.15E-07	2.22E-08 3.95E-06 1.32E 00
46 6.20 0.	0.	2.65E-04	0.	2.06E-01	0.	5.49E-02	3.30E-07	2.20E-08 4.04E-06 1.25E 00
47 6.10 0.	0.	9.67E-05	0.	3.92E-01	0.	5.53E-02	3.47E-07	2.20E-08 4.12E-06 1.20E 00
48 6.00 0.	0.	2.08E-05	0.	1.66E 00	0.	5.58E-02	3.64E-07	2.30E-08 4.21E-06 1.16E 00
49 5.90 0.	0.	1.46E 06	0.	5.21E-01	0.	5.58E-02	3.83E-07	2.30E-08 4.30E-06 1.11E 00
50 5.80 0.	0.	3.46E-09	0.	4.66E-01	0.	5.49E-02	4.03E-07	2.31E-08 4.38E-06 1.06E 00
51 5.70 0.	0.	1.79E 00	0.	4.53E-01	0.	5.16E-02	4.25E-07	2.31E-08 4.47E-06 1.03E 00

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.235E-02 (1.0E-01 NORMAL)		0.700		PHOTO-DET (IONS)		FREE-FREE		TOTAL AIR	
TEMPERATURE (DEGREES K)	DENSITY (GM/CC)	1.235E-02 (1.0E-01 NORMAL)	0.700	PHOTO-DET (IONS)	FREE-FREE	TOTAL AIR	TEMPERATURE (DEGREES K)	DENSITY (GM/CC)	1.235E-02 (1.0E-01 NORMAL)	0.700	PHOTO-DET (IONS)	FREE-FREE	TOTAL AIR
1ST POS.	2ND POS.	3RD POS.	4TH POS.	5TH POS.	6TH POS.	7TH POS.	1ST POS.	2ND POS.	3RD POS.	4TH POS.	5TH POS.	6TH POS.	7TH POS.
1ST POS.	2ND POS.	3RD POS.	4TH POS.	5TH POS.	6TH POS.	7TH POS.	1ST POS.	2ND POS.	3RD POS.	4TH POS.	5TH POS.	6TH POS.	7TH POS.
52	5.60	2.10E-01	0.0	0.0	0.0	0.0	52	5.60	2.10E-01	0.0	0.0	0.0	0.0
53	5.50	2.04E-01	0.0	0.0	0.0	0.0	53	5.50	2.04E-01	0.0	0.0	0.0	0.0
54	5.40	1.99E-01	0.0	0.0	0.0	0.0	54	5.40	1.99E-01	0.0	0.0	0.0	0.0
55	5.30	1.90E-01	0.0	0.0	0.0	0.0	55	5.30	1.90E-01	0.0	0.0	0.0	0.0
56	5.20	1.83E-01	0.0	0.0	0.0	0.0	56	5.20	1.83E-01	0.0	0.0	0.0	0.0
57	5.10	1.70E-01	0.0	0.0	0.0	0.0	57	5.10	1.70E-01	0.0	0.0	0.0	0.0
58	5.00	1.60E-01	0.0	0.0	0.0	0.0	58	5.00	1.60E-01	0.0	0.0	0.0	0.0
59	4.90	1.50E-01	0.0	0.0	0.0	0.0	59	4.90	1.50E-01	0.0	0.0	0.0	0.0
60	4.80	1.40E-01	0.0	0.0	0.0	0.0	60	4.80	1.40E-01	0.0	0.0	0.0	0.0
61	4.70	1.30E-01	0.0	0.0	0.0	0.0	61	4.70	1.30E-01	0.0	0.0	0.0	0.0
62	4.60	1.20E-01	0.0	0.0	0.0	0.0	62	4.60	1.20E-01	0.0	0.0	0.0	0.0
63	4.50	1.10E-01	0.0	0.0	0.0	0.0	63	4.50	1.10E-01	0.0	0.0	0.0	0.0
64	4.40	1.00E-01	0.0	0.0	0.0	0.0	64	4.40	1.00E-01	0.0	0.0	0.0	0.0
65	4.30	9.00E-02	0.0	0.0	0.0	0.0	65	4.30	9.00E-02	0.0	0.0	0.0	0.0
66	4.20	8.00E-02	0.0	0.0	0.0	0.0	66	4.20	8.00E-02	0.0	0.0	0.0	0.0
67	4.10	7.00E-02	0.0	0.0	0.0	0.0	67	4.10	7.00E-02	0.0	0.0	0.0	0.0
68	4.00	6.00E-02	0.0	0.0	0.0	0.0	68	4.00	6.00E-02	0.0	0.0	0.0	0.0
69	3.90	5.00E-02	0.0	0.0	0.0	0.0	69	3.90	5.00E-02	0.0	0.0	0.0	0.0
70	3.80	4.00E-02	0.0	0.0	0.0	0.0	70	3.80	4.00E-02	0.0	0.0	0.0	0.0
71	3.70	3.00E-02	0.0	0.0	0.0	0.0	71	3.70	3.00E-02	0.0	0.0	0.0	0.0
72	3.60	2.00E-02	0.0	0.0	0.0	0.0	72	3.60	2.00E-02	0.0	0.0	0.0	0.0
73	3.50	1.00E-02	0.0	0.0	0.0	0.0	73	3.50	1.00E-02	0.0	0.0	0.0	0.0
74	3.40	0.00E-02	0.0	0.0	0.0	0.0	74	3.40	0.00E-02	0.0	0.0	0.0	0.0
75	3.30	0.00E-02	0.0	0.0	0.0	0.0	75	3.30	0.00E-02	0.0	0.0	0.0	0.0
76	3.20	0.00E-02	0.0	0.0	0.0	0.0	76	3.20	0.00E-02	0.0	0.0	0.0	0.0
77	3.10	0.00E-02	0.0	0.0	0.0	0.0	77	3.10	0.00E-02	0.0	0.0	0.0	0.0
78	3.00	0.00E-02	0.0	0.0	0.0	0.0	78	3.00	0.00E-02	0.0	0.0	0.0	0.0
79	2.90	0.00E-02	0.0	0.0	0.0	0.0	79	2.90	0.00E-02	0.0	0.0	0.0	0.0
80	2.80	0.00E-02	0.0	0.0	0.0	0.0	80	2.80	0.00E-02	0.0	0.0	0.0	0.0
81	2.70	0.00E-02	0.0	0.0	0.0	0.0	81	2.70	0.00E-02	0.0	0.0	0.0	0.0
82	2.60	0.00E-02	0.0	0.0	0.0	0.0	82	2.60	0.00E-02	0.0	0.0	0.0	0.0
83	2.50	0.00E-02	0.0	0.0	0.0	0.0	83	2.50	0.00E-02	0.0	0.0	0.0	0.0
84	2.40	0.00E-02	0.0	0.0	0.0	0.0	84	2.40	0.00E-02	0.0	0.0	0.0	0.0
85	2.30	0.00E-02	0.0	0.0	0.0	0.0	85	2.30	0.00E-02	0.0	0.0	0.0	0.0
86	2.20	0.00E-02	0.0	0.0	0.0	0.0	86	2.20	0.00E-02	0.0	0.0	0.0	0.0
87	2.10	0.00E-02	0.0	0.0	0.0	0.0	87	2.10	0.00E-02	0.0	0.0	0.0	0.0
88	2.00	0.00E-02	0.0	0.0	0.0	0.0	88	2.00	0.00E-02	0.0	0.0	0.0	0.0
89	1.90	0.00E-02	0.0	0.0	0.0	0.0	89	1.90	0.00E-02	0.0	0.0	0.0	0.0
90	1.80	0.00E-02	0.0	0.0	0.0	0.0	90	1.80	0.00E-02	0.0	0.0	0.0	0.0
91	1.70	0.00E-02	0.0	0.0	0.0	0.0	91	1.70	0.00E-02	0.0	0.0	0.0	0.0
92	1.60	0.00E-02	0.0	0.0	0.0	0.0	92	1.60	0.00E-02	0.0	0.0	0.0	0.0
93	1.50	0.00E-02	0.0	0.0	0.0	0.0	93	1.50	0.00E-02	0.0	0.0	0.0	0.0
94	1.40	0.00E-02	0.0	0.0	0.0	0.0	94	1.40	0.00E-02	0.0	0.0	0.0	0.0
95	1.30	0.00E-02	0.0	0.0	0.0	0.0	95	1.30	0.00E-02	0.0	0.0	0.0	0.0
96	1.20	0.00E-02	0.0	0.0	0.0	0.0	96	1.20	0.00E-02	0.0	0.0	0.0	0.0
97	1.10	0.00E-02	0.0	0.0	0.0	0.0	97	1.10	0.00E-02	0.0	0.0	0.0	0.0
98	1.00	0.00E-02	0.0	0.0	0.0	0.0	98	1.00	0.00E-02	0.0	0.0	0.0	0.0
99	0.90	0.00E-02	0.0	0.0	0.0	0.0	99	0.90	0.00E-02	0.0	0.0	0.0	0.0
100	0.80	0.00E-02	0.0	0.0	0.0	0.0	100	0.80	0.00E-02	0.0	0.0	0.0	0.0
101	0.70	0.00E-02	0.0	0.0	0.0	0.0	101	0.70	0.00E-02	0.0	0.0	0.0	0.0
102	0.60	0.00E-02	0.0	0.0	0.0	0.0	102	0.60	0.00E-02	0.0	0.0	0.0	0.0

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY BANDS E.V.	02 S-R	02 S-R CONT.	02 R-H NO. 1	TEMPERATURE (DEGREES F.)	6000.	DENSITY (GM/CC)	1.293E-03 (10.5E-01 NORMAL)	NO. 2	0- PHOTO-DET (10KS)	N FREE-FRFT P.E.	0 TOTAL AIR P.E.
1 10.70 0.	0.	0.	1.32E-00	0.	0.	0.	1.41E-03	2.98E-09	3.22E-08	4.26E-07	1.33E-00
2 10.80 0.	0.	0.	1.04E-00	0.	0.	0.	1.48E-03	3.07E-09	3.23E-08	4.27E-07	1.05E-00
3 10.90 0.	0.	0.	9.04E-01	0.	0.	0.	1.48E-03	3.15E-09	3.25E-08	4.28E-07	9.66E-01
4 10.40 0.	0.	0.	6.07E-01	0.	0.	0.	1.62E-03	3.25E-09	3.27E-08	4.29E-07	6.09E-01
5 10.30 0.	0.	0.	5.75E-01	0.	0.	0.	1.62E-03	3.34E-09	3.27E-08	4.30E-07	6.09E-01
6 10.20 0.	0.	0.	4.86E-01	0.	0.	0.	1.62E-03	3.44E-09	3.27E-08	4.31E-07	5.73E-01
7 10.10 0.	0.	0.	3.93E-01	0.	0.	0.	1.62E-03	3.53E-09	3.28E-08	4.32E-07	4.91E-01
8 10.00 0.	0.	0.	3.48E-01	0.	0.	0.	1.62E-03	3.66E-09	3.29E-08	4.33E-07	3.54E-01
9 9.90 0.	0.	0.	3.05E-01	0.	0.	0.	1.62E-03	3.77E-09	3.30E-08	4.33E-07	3.51E-01
10 9.80 0.	0.	0.	2.64E-01	0.	0.	0.	1.62E-03	3.86E-09	3.30E-08	4.34E-07	2.64E-01
11 9.70 0.	0.	0.	2.18E-01	0.	0.	0.	1.62E-03	4.01E-09	3.31E-08	4.34E-07	2.04E-01
12 9.60 0.	0.	0.	1.72E-01	0.	0.	0.	1.62E-03	4.13E-09	3.32E-08	4.36E-07	2.02E-01
13 9.50 0.	0.	0.	1.24E-01	0.	0.	0.	1.62E-03	4.27E-09	3.33E-08	4.37E-07	1.25E-01
14 9.40 0.	0.	0.	1.19E-01	0.	0.	0.	1.62E-03	4.40E-09	3.33E-08	4.38E-07	1.19E-01
15 9.30 0.	0.	0.	1.14E-01	0.	0.	0.	1.62E-03	4.53E-09	3.33E-08	4.39E-07	1.14E-01
16 9.20 0.	0.	0.	1.08E-01	0.	0.	0.	1.62E-03	4.70E-09	3.34E-08	4.40E-07	1.08E-01
17 9.10 0.	0.	0.	7.52E-01	0.	0.	0.	1.62E-03	4.86E-09	3.34E-08	4.40E-07	8.56E-01
18 9.00 0.	0.	0.	9.08E-01	0.	0.	0.	1.62E-03	5.02E-09	3.35E-08	4.42E-07	9.22E-01
19 8.90 0.	0.	0.	1.06E-00	0.	0.	0.	1.62E-03	5.17E-09	3.35E-08	4.42E-07	1.12E-00
20 8.80 0.	0.	0.	1.11E-00	0.	0.	0.	1.62E-03	5.37E-09	3.35E-08	4.43E-07	1.13E-00
21 8.70 0.	0.	0.	1.04E-00	0.	0.	0.	1.62E-03	5.54E-09	3.35E-08	4.43E-07	1.09E-00
22 8.60 0.	0.	0.	1.01E-00	0.	0.	0.	1.62E-03	5.74E-09	3.35E-08	4.43E-07	1.04E-00
23 8.50 0.	0.	0.	9.72E-01	0.	0.	0.	1.62E-03	5.96E-09	3.35E-08	4.43E-07	9.72E-01
24 8.40 0.	0.	0.	9.40E-01	0.	0.	0.	1.62E-03	6.18E-09	3.35E-08	4.43E-07	9.40E-01
25 8.30 0.	0.	0.	8.98E-01	0.	0.	0.	1.62E-03	6.41E-09	3.35E-08	4.43E-07	9.14E-01
26 8.20 0.	0.	0.	8.60E-01	0.	0.	0.	1.62E-03	6.64E-09	3.35E-08	4.43E-07	8.76E-01
27 8.10 0.	0.	0.	8.26E-01	0.	0.	0.	1.62E-03	6.89E-09	3.35E-08	4.43E-07	8.42E-01
28 8.00 0.	0.	0.	7.95E-01	0.	0.	0.	1.62E-03	7.16E-09	3.35E-08	4.43E-07	8.02E-01
29 7.90 0.	0.	0.	7.51E-01	0.	0.	0.	1.62E-03	7.45E-09	3.35E-08	4.43E-07	7.59E-01
30 7.80 0.	0.	0.	7.11E-01	0.	0.	0.	1.62E-03	7.72E-09	3.35E-08	4.43E-07	7.19E-01
31 7.70 0.	0.	0.	6.70E-01	0.	0.	0.	1.62E-03	8.03E-09	3.35E-08	4.43E-07	6.76E-01
32 7.60 0.	0.	0.	6.29E-01	0.	0.	0.	1.62E-03	8.35E-09	3.35E-08	4.43E-07	6.35E-01
33 7.50 0.	0.	0.	5.89E-01	0.	0.	0.	1.62E-03	8.69E-09	3.35E-08	4.43E-07	5.93E-01
34 7.40 0.	0.	0.	5.47E-01	0.	0.	0.	1.62E-03	9.05E-09	3.35E-08	4.43E-07	5.51E-01
35 7.30 0.	0.	0.	5.04E-01	0.	0.	0.	1.62E-03	9.43E-09	3.35E-08	4.43E-07	5.12E-01
36 7.20 0.	0.	0.	4.64E-01	0.	0.	0.	1.62E-03	9.83E-09	3.35E-08	4.43E-07	4.80E-01
37 7.10 0.	0.	0.	4.31E-01	0.	0.	0.	1.62E-03	1.02E-08	3.35E-08	4.43E-07	4.47E-01
38 7.00 0.	0.	0.	1.04E-03	0.	0.	0.	1.62E-03	1.07E-08	3.35E-08	4.43E-07	4.08E-02
39 6.90 0.	0.	0.	8.47E-04	0.	0.	0.	1.62E-03	1.12E-08	3.35E-08	4.43E-07	4.08E-02
40 6.80 0.	0.	0.	7.00E-04	0.	0.	0.	1.62E-03	1.17E-08	3.35E-08	4.43E-07	4.08E-02
41 6.70 0.	0.	0.	5.27E-04	0.	0.	0.	1.62E-03	1.22E-08	3.35E-08	4.43E-07	4.08E-02
42 6.60 0.	0.	0.	4.09E-04	0.	0.	0.	1.62E-03	1.28E-08	3.35E-08	4.43E-07	4.08E-02
43 6.50 0.	0.	0.	2.67E-04	0.	0.	0.	1.62E-03	1.34E-08	3.35E-08	4.43E-07	4.08E-02
44 6.40 0.	0.	0.	1.41E-04	0.	0.	0.	1.62E-03	1.40E-08	3.35E-08	4.43E-07	4.08E-02
45 6.30 0.	0.	0.	6.46E-05	0.	0.	0.	1.62E-03	1.47E-08	3.35E-08	4.43E-07	4.08E-02
46 6.20 0.	0.	0.	2.70E-05	0.	0.	0.	1.62E-03	1.54E-08	3.35E-08	4.43E-07	4.08E-02
47 6.10 0.	0.	0.	9.66E-06	0.	0.	0.	1.62E-03	1.62E-08	3.35E-08	4.43E-07	4.08E-02
48 6.00 0.	0.	0.	2.12E-06	0.	0.	0.	1.62E-03	1.70E-08	3.35E-08	4.43E-07	4.08E-02
49 5.90 0.	0.	0.	1.48E-07	0.	0.	0.	1.62E-03	1.79E-08	3.35E-08	4.43E-07	4.08E-02
50 5.80 0.	0.	0.	3.52E-09	0.	0.	0.	1.62E-03	1.88E-08	3.35E-08	4.43E-07	4.08E-02
51 5.70 0.	0.	0.	3.04E-02	0.	0.	0.	1.62E-03	1.98E-08	3.35E-08	4.43E-07	4.08E-02

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)
TEMPERATURE (DEGREES K) 6000. DENSITY (GM/CC) 1.293E-03 (10.0E-01 NORMAL)

PHOTON 02 S-R ENERGY BANDS	1ST POS.	2ND POS.	M2	N2+ 1ST NEG.	NO RETA	10 GAMMA	NO VIB-ROT	NO 2	0- PHOTC-DET	N P.E.	0 P.F.	TOTAL AIR	
52	5.50	4.49E-02	0.	0.	1.94E-02	1.67E-2	0.	0.	1.72E-03	2.09E-04	7.40E-09	5.66E-07	2.28E-01
53	5.50	4.30E-02	0.	0.	2.49E-02	2.17E-2	0.	0.	1.73E-03	2.21E-04	4.3E-09	5.76E-07	2.49E-01
54	5.40	4.28E-02	0.	0.	1.93E-02	1.10E-02	0.	0.	1.73E-03	2.43E-04	4.5E-09	6.91E-07	1.45E-01
55	5.30	3.88E-02	0.	0.	1.58E-02	1.37E-02	0.	0.	1.75E-03	2.47E-04	4.8E-09	7.05E-07	1.17E-01
56	5.20	3.43E-02	0.	0.	1.90E-02	1.70E-02	0.	0.	1.76E-03	2.82E-04	7.53E-09	7.43E-07	1.12E-01
57	5.10	2.14E-02	0.	0.	1.80E-02	2.60E-02	0.	3.03E-05	1.77E-03	2.76E-04	7.70E-09	7.43E-07	1.37E-01
58	5.00	1.49E-02	0.	0.	1.46E-02	3.02E-02	0.	3.03E-05	1.79E-03	2.94E-04	7.89E-09	7.61E-07	1.12E-01
59	4.90	1.24E-02	0.	0.	1.50E-02	3.60E-02	0.	3.03E-05	1.47E-03	3.17E-04	8.05E-09	7.80E-07	9.31E-02
60	4.80	1.29E-02	0.	0.	1.54E-02	3.62E-02	0.	3.03E-05	1.47E-03	3.18E-04	8.05E-09	7.80E-07	9.31E-02
61	4.72	1.27E-02	0.	0.	1.37E-02	4.31E-02	0.	3.03E-05	1.43E-03	3.35E-04	8.25E-09	7.99E-07	9.18E-02
62	4.60	1.40E-02	0.	0.	1.31E-02	4.35E-02	0.	3.03E-05	1.43E-03	3.36E-04	8.41E-09	8.18E-07	7.14E-02
63	4.50	1.29E-02	0.	0.	1.09E-02	2.60E-02	0.	3.03E-05	1.45E-03	3.76E-04	8.61E-09	8.38E-07	7.25E-02
64	4.40	1.20E-02	0.	0.	8.73E-03	2.10E-02	0.	3.03E-05	1.46E-03	4.04E-04	8.82E-09	8.57E-07	5.13E-02
65	4.30	9.92E-03	0.	0.	8.15E-03	1.01E-02	0.	3.03E-05	1.48E-03	4.35E-04	9.03E-09	8.77E-07	4.55E-02
66	4.20	8.35E-03	0.	0.	8.02E-03	3.32E-03	0.	3.03E-05	1.49E-03	4.65E-04	9.25E-09	8.97E-07	3.62E-02
67	4.10	7.18E-03	0.	0.	8.03E-03	2.27E-03	0.	3.03E-05	1.41E-03	4.95E-04	9.46E-09	9.13E-07	2.72E-02
68	4.00	5.83E-03	0.	0.	8.47E-03	1.64E-03	0.	3.03E-05	1.41E-03	5.35E-04	9.68E-09	9.35E-07	1.40E-02
69	3.90	4.27E-03	0.	0.	2.91E-04	1.66E-07	0.	3.03E-05	1.41E-03	5.76E-04	9.89E-09	9.56E-07	1.40E-02
70	3.80	4.27E-03	0.	0.	2.91E-04	1.66E-07	0.	3.03E-05	1.41E-03	5.76E-04	9.89E-09	9.56E-07	1.40E-02
71	3.70	3.23E-03	0.	0.	5.72E-04	4.25E-07	0.	3.03E-05	1.41E-03	6.21E-04	1.02E-09	9.81E-07	1.19E-02
72	3.60	2.62E-03	0.	0.	1.78E-04	2.31E-04	0.	3.03E-05	1.41E-03	6.72E-04	1.07E-09	1.01E-07	1.19E-02
73	3.50	2.16E-03	0.	0.	1.77E-04	1.34E-05	0.	3.03E-05	1.41E-03	7.06E-04	1.11E-09	1.01E-07	1.19E-02
74	3.40	1.64E-03	0.	0.	1.21E-04	3.02E-07	0.	3.03E-05	1.41E-03	7.90E-04	1.16E-09	1.11E-07	1.19E-02
75	3.30	1.24E-03	0.	0.	1.60E-04	1.32E-06	0.	3.03E-05	1.41E-03	8.59E-04	1.21E-09	1.21E-07	1.19E-02
76	3.20	9.22E-04	0.	0.	6.52E-05	1.62E-05	0.	3.03E-05	1.41E-03	9.31E-04	1.26E-09	1.26E-07	1.19E-02
77	3.10	7.71E-04	0.	0.	5.52E-05	1.59E-07	0.	3.03E-05	1.41E-03	1.15E-07	4.71E-09	8.55E-09	3.44E-03
78	3.00	5.93E-04	0.	0.	2.47E-05	3.09E-04	0.	3.03E-05	1.41E-03	1.26E-07	5.16E-09	9.38E-09	2.86E-03
79	2.90	4.92E-04	0.	0.	1.47E-05	5.26E-05	0.	3.03E-05	1.41E-03	1.37E-07	6.65E-09	1.02E-07	2.93E-03
80	2.80	3.92E-04	0.	0.	6.19E-06	5.26E-07	0.	3.03E-05	1.41E-03	1.50E-07	8.13E-09	1.10E-07	1.66E-03
81	2.70	1.99E-04	0.	0.	2.66E-06	1.82E-06	0.	3.03E-05	1.41E-03	1.65E-07	6.65E-09	1.19E-07	1.65E-03
82	2.60	6.91E-05	0.	0.	1.42E-06	1.94E-07	0.	3.03E-05	1.41E-03	1.70E-07	7.15E-09	1.27E-07	1.26E-03
83	2.50	4.26E-06	0.	0.	2.26E-07	8.44E-08	0.	3.03E-05	1.41E-03	2.35E-07	7.65E-09	2.67E-09	1.97E-03
84	2.40	0.	0.	0.	1.45E-07	6.44E-07	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
85	2.30	0.	0.	0.	0.	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
86	2.20	0.	0.	0.	2.41E-04	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
87	2.10	0.	0.	0.	5.21E-04	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
88	2.00	0.	0.	0.	6.41E-04	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
89	1.90	0.	0.	0.	5.12E-03	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
90	1.80	0.	0.	0.	1.60E-03	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
91	1.70	0.	0.	0.	2.11E-03	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
92	1.60	0.	0.	0.	1.51E-03	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
93	1.50	0.	0.	0.	1.05E-03	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
94	1.40	0.	0.	0.	2.31E-03	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
95	1.30	0.	0.	0.	1.46E-03	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
96	1.20	0.	0.	0.	1.77E-03	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
97	1.10	0.	0.	0.	1.14E-03	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
98	1.00	0.	0.	0.	8.45E-04	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
99	0.90	0.	0.	0.	3.77E-04	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
100	0.80	0.	0.	0.	0.	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
101	0.70	0.	0.	0.	0.	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04
102	0.60	0.	0.	0.	0.	0.	0.	3.03E-05	1.41E-03	2.63E-07	8.25E-09	2.37E-09	9.40E-04

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		10-DE-02 NORMAL		NO		0- FREE-FREE		N		0		TOTAL AIR	
		6000.		1.293E-04		2		PHOTO-DET (IONS)		P.E.		P.E.			
PHOTON U2 S-2	02 S-2	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9	NO. 10	NO. 11	NO. 12	NO. 13	NO. 14
ENERGY BANDS	CONT.	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9	NO. 10	NO. 11	NO. 12	NO. 13	NO. 14
E.V.															
1 10.70 0.	0.	1.27E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2 10.60 0.	0.	1.08E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3 10.50 0.	0.	9.27E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4 10.40 0.	0.	7.76E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5 10.30 0.	0.	6.46E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6 10.20 0.	0.	5.49E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7 10.10 0.	0.	4.71E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8 10.00 0.	0.	3.90E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9 9.90 0.	0.	3.36E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10 9.80 0.	0.	2.74E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11 9.70 0.	0.	1.94E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12 9.60 0.	0.	2.19E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13 9.50 0.	0.	6.02E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14 9.40 0.	0.	6.03E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15 9.30 0.	0.	7.23E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16 9.20 0.	0.	7.03E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17 9.10 0.	0.	9.40E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18 9.00 0.	0.	1.14E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19 8.90 0.	0.	1.36E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20 8.80 0.	0.	1.41E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21 8.70 0.	0.	1.35E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22 8.60 0.	0.	1.29E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23 8.50 0.	0.	1.24E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24 8.40 0.	0.	1.20E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25 8.30 0.	0.	1.15E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26 8.20 0.	0.	1.10E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27 8.10 0.	0.	1.05E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28 8.00 0.	0.	1.01E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29 7.90 0.	0.	9.59E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30 7.80 0.	0.	9.07E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31 7.70 0.	0.	8.55E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32 7.60 0.	0.	8.03E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33 7.50 0.	0.	7.51E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34 7.40 0.	0.	6.99E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35 7.30 0.	0.	6.46E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36 7.20 0.	0.	5.94E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37 7.10 0.	0.	5.51E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38 7.00 0.	0.	5.08E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39 6.90 0.	0.	4.65E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40 6.80 0.	0.	4.22E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41 6.70 0.	0.	3.79E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42 6.60 0.	0.	3.36E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43 6.50 0.	0.	2.93E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44 6.40 0.	0.	2.50E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45 6.30 0.	0.	2.07E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46 6.20 0.	0.	1.64E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47 6.10 0.	0.	1.21E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48 6.00 0.	0.	8.78E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49 5.90 0.	0.	6.46E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50 5.80 0.	0.	4.22E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51 5.70 0.	0.	2.07E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON OF S-R ENERGY BANDS		TEMPERATURE (DEGREES K)		6000.		DENSITY (GM/CC: 1.293E-04 (10.0E-02 NORMAL)		0		O		TOTAL AIR	
1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	BETA	GAMMA	VIB-RNT	NO	2	PHOTO-DET (TOMS)	N	P.F.	O	P.F.
52	5.60	5.73E-04	0.	0.	6.79E-04	5.66E-03	0.	0.	3.73E-05	7.45E-10	2.70E-09	7.52E-08	6.95E-03
53	5.50	5.57E-04	0.	0.	6.71E-04	6.24E-03	0.	0.	3.78E-05	7.81E-10	2.73E-09	7.68E-08	7.70E-03
54	5.40	5.43E-04	0.	0.	6.72E-04	6.24E-03	0.	0.	3.78E-05	8.23E-10	2.73E-09	7.81E-08	8.09E-03
55	5.30	5.49E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.79E-05	8.72E-10	2.73E-09	7.97E-08	8.67E-03
56	5.20	5.37E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	9.25E-10	2.73E-09	8.18E-08	9.30E-03
57	5.10	5.27E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	9.80E-10	2.73E-09	8.39E-08	9.95E-03
58	5.00	5.19E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	1.04E-09	2.73E-09	8.60E-08	1.06E-02
59	4.90	5.12E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	1.10E-09	2.73E-09	8.81E-08	1.13E-02
60	4.80	5.05E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	1.16E-09	2.73E-09	9.02E-08	1.20E-02
61	4.70	4.98E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	1.22E-09	2.73E-09	9.23E-08	1.27E-02
62	4.60	4.91E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	1.28E-09	2.73E-09	9.44E-08	1.34E-02
63	4.50	4.84E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	1.34E-09	2.73E-09	9.65E-08	1.41E-02
64	4.40	4.77E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	1.40E-09	2.73E-09	9.86E-08	1.48E-02
65	4.30	4.70E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	1.46E-09	2.73E-09	1.01E-07	1.55E-02
66	4.20	4.63E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	1.52E-09	2.73E-09	1.03E-07	1.62E-02
67	4.10	4.56E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	1.58E-09	2.73E-09	1.05E-07	1.69E-02
68	4.00	4.49E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	1.64E-09	2.73E-09	1.07E-07	1.76E-02
69	3.90	4.42E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	1.70E-09	2.73E-09	1.09E-07	1.83E-02
70	3.80	4.35E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	1.76E-09	2.73E-09	1.11E-07	1.90E-02
71	3.70	4.28E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	1.82E-09	2.73E-09	1.13E-07	1.97E-02
72	3.60	4.21E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	1.88E-09	2.73E-09	1.15E-07	2.04E-02
73	3.50	4.14E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	1.94E-09	2.73E-09	1.17E-07	2.11E-02
74	3.40	4.07E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	2.00E-09	2.73E-09	1.19E-07	2.18E-02
75	3.30	4.00E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	2.06E-09	2.73E-09	1.21E-07	2.25E-02
76	3.20	3.93E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	2.12E-09	2.73E-09	1.23E-07	2.32E-02
77	3.10	3.86E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	2.18E-09	2.73E-09	1.25E-07	2.39E-02
78	3.00	3.79E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	2.24E-09	2.73E-09	1.27E-07	2.46E-02
79	2.90	3.72E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	2.30E-09	2.73E-09	1.29E-07	2.53E-02
80	2.80	3.65E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	2.36E-09	2.73E-09	1.31E-07	2.60E-02
81	2.70	3.58E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	2.42E-09	2.73E-09	1.33E-07	2.67E-02
82	2.60	3.51E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	2.48E-09	2.73E-09	1.35E-07	2.74E-02
83	2.50	3.44E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	2.54E-09	2.73E-09	1.37E-07	2.81E-02
84	2.40	3.37E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	2.60E-09	2.73E-09	1.39E-07	2.88E-02
85	2.30	3.30E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	2.66E-09	2.73E-09	1.41E-07	2.95E-02
86	2.20	3.23E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	2.72E-09	2.73E-09	1.43E-07	3.02E-02
87	2.10	3.16E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	2.78E-09	2.73E-09	1.45E-07	3.09E-02
88	2.00	3.09E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	2.84E-09	2.73E-09	1.47E-07	3.16E-02
89	1.90	3.02E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	2.90E-09	2.73E-09	1.49E-07	3.23E-02
90	1.80	2.95E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	2.96E-09	2.73E-09	1.51E-07	3.30E-02
91	1.70	2.88E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	3.02E-09	2.73E-09	1.53E-07	3.37E-02
92	1.60	2.81E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	3.08E-09	2.73E-09	1.55E-07	3.44E-02
93	1.50	2.74E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	3.14E-09	2.73E-09	1.57E-07	3.51E-02
94	1.40	2.67E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	3.20E-09	2.73E-09	1.59E-07	3.58E-02
95	1.30	2.60E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	3.26E-09	2.73E-09	1.61E-07	3.65E-02
96	1.20	2.53E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	3.32E-09	2.73E-09	1.63E-07	3.72E-02
97	1.10	2.46E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	3.38E-09	2.73E-09	1.65E-07	3.79E-02
98	1.00	2.39E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	3.44E-09	2.73E-09	1.67E-07	3.86E-02
99	0.90	2.32E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	3.50E-09	2.73E-09	1.69E-07	3.93E-02
100	0.80	2.25E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	3.56E-09	2.73E-09	1.71E-07	4.00E-02
101	0.70	2.18E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	3.62E-09	2.73E-09	1.73E-07	4.07E-02
102	0.60	2.11E-04	0.	0.	6.94E-04	5.90E-03	0.	0.	3.81E-05	3.68E-09	2.73E-09	1.75E-07	4.14E-02

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)
TEMPERATURE (DEGREES K) 6000. DENSITY (GM/CC) 1.293E-05 (18.8E-03 NORMAL)

PHOTON E.V.	02 S-R BANDS	02 S-R CONT.	N2 R-W NO. 1	NO BETA	NO GAMMA	NO 2	Q- PHOTO-DET (IONS)	FREE-FREE P.E.	N P.E.	0 TOTAL AIR P.E.
1	10.70 0.	0.	1.04E-02	0.	0.	0.	6.44E-07	3.33E-12	2.87E-09	4.99E-09
2	10.60 0.	0.	8.34E-03	0.	0.	0.	6.44E-07	3.42E-12	2.89E-09	5.00E-09
3	10.50 0.	0.	7.78E-03	0.	0.	0.	6.45E-07	3.52E-12	2.91E-09	5.01E-09
4	10.40 0.	0.	6.49E-03	0.	0.	0.	6.46E-07	3.61E-12	2.93E-09	5.02E-09
5	10.30 0.	0.	4.85E-03	0.	0.	0.	6.47E-07	3.73E-12	2.92E-09	5.03E-09
6	10.20 0.	0.	4.96E-03	0.	0.	0.	6.48E-07	3.83E-12	2.93E-09	5.04E-09
7	10.10 0.	0.	3.91E-03	0.	0.	0.	6.49E-07	3.94E-12	2.93E-09	5.05E-09
8	10.00 0.	0.	2.82E-03	0.	0.	0.	6.49E-07	4.04E-12	2.94E-09	5.06E-09
9	9.90 0.	0.	2.79E-03	0.	0.	0.	6.51E-07	4.21E-12	2.95E-09	5.07E-09
10	9.80 0.	0.	2.27E-03	0.	0.	0.	6.52E-07	4.34E-12	2.95E-09	5.08E-09
11	9.70 0.	0.	1.69E-03	0.	0.	0.	6.53E-07	4.48E-12	2.96E-09	5.09E-09
12	9.60 0.	0.	1.74E-03	0.	0.	0.	6.54E-07	4.62E-12	2.97E-09	5.10E-09
13	9.50 0.	6.47E-05	1.21E-03	0.	0.	0.	6.55E-07	4.77E-12	2.97E-09	5.11E-09
14	9.40 0.	7.12E-05	1.01E-03	0.	0.	0.	6.56E-07	4.92E-12	2.98E-09	5.12E-09
15	9.30 0.	7.76E-05	9.08E-04	0.	0.	0.	6.58E-07	5.08E-12	2.98E-09	5.13E-09
16	9.20 0.	8.41E-05	6.31E-04	0.	0.	0.	6.63E-07	5.25E-12	2.98E-09	5.14E-09
17	9.10 0.	1.03E-04	4.97E-04	0.	0.	0.	6.65E-07	5.42E-12	2.98E-09	5.15E-09
18	9.00 0.	1.25E-04	4.97E-04	0.	0.	0.	6.67E-07	5.61E-12	2.98E-09	5.16E-09
19	8.90 0.	1.46E-04	3.98E-04	0.	0.	0.	6.70E-07	5.80E-12	2.97E-09	5.17E-09
20	8.80 0.	1.59E-04	3.69E-04	0.	0.	0.	6.72E-07	6.00E-12	2.97E-09	5.18E-09
21	8.70 0.	1.45E-04	2.59E-04	0.	0.	0.	6.75E-07	6.21E-12	2.97E-09	5.19E-09
22	8.60 0.	1.39E-04	2.54E-04	0.	0.	0.	6.77E-07	6.43E-12	2.97E-09	5.20E-09
23	8.50 0.	1.35E-04	1.88E-04	0.	0.	0.	6.79E-07	6.66E-12	2.97E-09	5.21E-09
24	8.40 0.	1.23E-04	1.68E-04	0.	0.	0.	6.83E-07	6.90E-12	2.97E-09	5.22E-09
25	8.30 0.	1.23E-04	1.17E-04	0.	0.	0.	6.86E-07	7.15E-12	2.97E-09	5.23E-09
26	8.20 0.	1.19E-04	1.11E-04	0.	0.	0.	6.90E-07	7.42E-12	2.97E-09	5.24E-09
27	8.10 0.	1.13E-04	7.94E-05	0.	0.	0.	6.94E-07	7.70E-12	2.97E-09	5.25E-09
28	8.00 0.	1.06E-04	7.36E-05	0.	0.	0.	6.97E-07	7.99E-12	2.97E-09	5.26E-09
29	7.90 0.	1.03E-04	5.31E-05	0.	0.	0.	7.01E-07	8.30E-12	2.97E-09	5.27E-09
30	7.80 0.	9.74E-05	5.05E-05	0.	0.	0.	7.04E-07	8.62E-12	2.97E-09	5.28E-09
31	7.70 0.	9.19E-05	3.74E-05	0.	0.	0.	7.08E-07	8.97E-12	2.97E-09	5.29E-09
32	7.60 0.	8.62E-05	3.19E-05	0.	0.	0.	7.11E-07	9.33E-12	2.97E-09	5.30E-09
33	7.50 0.	8.04E-05	2.59E-05	0.	0.	0.	7.15E-07	9.71E-12	2.97E-09	5.31E-09
34	7.40 0.	7.50E-05	1.97E-05	0.	0.	0.	7.19E-07	1.01E-11	2.97E-09	5.32E-09
35	7.30 0.	6.94E-05	1.63E-05	0.	0.	0.	7.23E-07	1.05E-11	2.97E-09	5.33E-09
36	7.20 0.	6.42E-05	1.27E-05	0.	0.	0.	7.27E-07	1.09E-11	2.97E-09	5.34E-09
37	7.10 0.	5.91E-05	1.07E-05	0.	0.	0.	7.31E-07	1.14E-11	2.97E-09	5.35E-09
38	7.00 1.38E-07	0.	4.48E-06	0.	0.	0.	7.35E-07	1.19E-11	2.97E-09	5.36E-09
39	6.90 1.87E-07	0.	6.77E-06	0.	0.	0.	7.39E-07	1.25E-11	2.97E-09	5.37E-09
40	6.80 1.87E-07	0.	5.59E-06	0.	0.	0.	7.43E-07	1.30E-11	2.97E-09	5.38E-09
41	6.70 1.24E-07	0.	4.21E-06	0.	0.	0.	7.47E-07	1.36E-11	2.97E-09	5.39E-09
42	6.60 6.91E-08	0.	3.24E-06	0.	0.	0.	7.51E-07	1.39E-11	2.97E-09	5.40E-09
43	6.50 3.60E-08	0.	2.13E-06	0.	0.	0.	7.55E-07	1.43E-11	2.97E-09	5.41E-09
44	6.40 5.29E-08	0.	1.12E-06	2.11E-06	2.77E-04	0.	7.59E-07	1.48E-11	2.97E-09	5.42E-09
45	6.30 1.08E-07	0.	5.12E-06	8.28E-06	9.60E-05	0.	7.63E-07	1.52E-11	2.97E-09	5.43E-09
46	6.20 2.80E-07	0.	2.16E-07	1.01E-05	1.54E-04	0.	7.67E-07	1.57E-11	2.97E-09	5.44E-09
47	6.10 1.05E-06	0.	7.68E-08	2.58E-05	3.41E-04	0.	7.71E-07	1.62E-11	2.97E-09	5.45E-09
48	6.00 2.49E-06	0.	1.70E-08	1.84E-05	8.24E-05	0.	7.75E-07	1.67E-11	2.97E-09	5.46E-09
49	5.90 3.66E-06	0.	1.19E-09	2.54E-05	1.07E-04	0.	7.79E-07	1.72E-11	2.97E-09	5.47E-09
50	5.80 5.02E-06	0.	2.82E-11	3.25E-05	9.54E-05	0.	7.83E-07	1.77E-11	2.97E-09	5.48E-09
51	5.70 5.23E-06	0.	0.	3.18E-05	7.94E-05	0.	7.87E-07	1.82E-11	2.97E-09	5.49E-09

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 6005. DENSITY (GM/CC) 1.293E-05 (10.0E-03 NORMAL)

PHOTON ENERGY BANDS	1ST POS.	2ND POS.	M2	M2+	1ST NEG.	BETA	NO	NO	GAMMA	NO	NO	2	PHOTO-DET (IONS)	FREE-FREE N	P.E.	0	TOTAL AIR
52	5.40	6.14E-06	0.	0.	0.	2.03E-05	1.68E-04	0.	0.	6.87E-07	2.34E-11	6.62E-10	7.79E-09	1.94E-04			
53	5.50	5.98E-06	0.	0.	0.	2.60E-05	1.84E-04	0.	0.	6.91E-07	2.47E-11	6.63E-10	7.93E-09	2.19E-04			
54	5.60	5.82E-06	0.	0.	0.	2.01E-05	8.47E-05	0.	0.	6.94E-07	2.61E-11	6.66E-10	8.08E-09	1.11E-04			
55	5.70	5.26E-06	0.	0.	0.	2.07E-05	1.64E-04	0.	0.	7.09E-07	2.76E-11	6.70E-10	8.25E-09	1.91E-04			
56	5.80	3.36E-06	0.	0.	0.	2.03E-05	7.00E-05	0.	0.	7.03E-07	2.62E-11	6.73E-10	8.47E-09	9.45E-05			
57	5.10	2.93E-06	0.	0.	0.	1.68E-05	0.00E-05	0.	0.	3.70E-10	7.09E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
58	5.00	2.09E-06	0.	0.	0.	1.53E-05	8.39E-05	0.	0.	3.70E-10	7.15E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
59	4.90	1.68E-06	0.	0.	0.	1.57E-05	6.53E-05	0.	0.	3.70E-10	7.21E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
60	4.80	1.74E-06	0.	0.	0.	1.61E-05	6.40E-05	0.	0.	3.70E-10	7.27E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
61	4.70	1.74E-06	0.	0.	0.	1.44E-05	4.51E-05	0.	0.	3.70E-10	7.33E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
62	4.60	1.92E-06	0.	0.	0.	1.37E-05	4.59E-05	0.	0.	3.70E-10	7.39E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
63	4.50	1.77E-06	0.	0.	0.	1.09E-05	2.72E-05	0.	0.	3.70E-10	7.45E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
64	4.40	1.64E-06	0.	0.	0.	1.02E-05	2.26E-05	0.	0.	3.70E-10	7.51E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
65	4.30	1.36E-06	0.	0.	0.	8.74E-06	1.05E-05	0.	0.	3.70E-10	7.57E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
66	4.20	1.15E-06	0.	0.	0.	8.44E-06	9.80E-06	0.	0.	3.70E-10	7.63E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
67	4.10	9.78E-07	0.	0.	0.	7.14E-06	2.38E-06	0.	0.	3.70E-10	7.69E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
68	4.00	7.97E-07	0.	0.	0.	6.25E-06	1.71E-06	0.	0.	3.70E-10	7.75E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
69	3.90	5.89E-07	0.	0.	0.	4.79E-06	8.74E-07	0.	0.	3.70E-10	7.81E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
70	3.80	6.03E-07	0.	0.	0.	4.95E-06	8.74E-07	0.	0.	3.70E-10	7.87E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
71	3.70	4.45E-07	0.	0.	0.	4.52E-06	8.06E-08	0.	0.	3.70E-10	7.93E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
72	3.60	3.58E-07	0.	0.	0.	3.42E-06	3.22E-08	0.	0.	3.70E-10	7.99E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
73	3.50	2.94E-07	0.	0.	0.	3.01E-06	3.12E-08	0.	0.	3.70E-10	8.05E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
74	3.40	2.31E-07	0.	0.	0.	2.61E-06	2.48E-08	0.	0.	3.70E-10	8.11E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
75	3.30	1.69E-07	0.	0.	0.	2.20E-06	1.93E-08	0.	0.	3.70E-10	8.17E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
76	3.20	1.20E-07	0.	0.	0.	1.89E-06	1.45E-08	0.	0.	3.70E-10	8.23E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
77	3.10	1.06E-07	0.	0.	0.	1.73E-06	1.32E-08	0.	0.	3.70E-10	8.29E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
78	3.00	8.18E-08	0.	0.	0.	1.57E-06	1.19E-08	0.	0.	3.70E-10	8.35E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
79	2.90	5.78E-08	0.	0.	0.	1.42E-06	1.06E-08	0.	0.	3.70E-10	8.41E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
80	2.80	5.37E-08	0.	0.	0.	1.26E-06	9.36E-09	0.	0.	3.70E-10	8.47E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
81	2.70	7.78E-08	0.	0.	0.	1.10E-06	8.11E-09	0.	0.	3.70E-10	8.53E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
82	2.60	9.44E-09	0.	0.	0.	9.44E-07	7.14E-09	0.	0.	3.70E-10	8.59E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
83	2.50	5.83E-10	0.	0.	0.	8.35E-08	6.25E-10	0.	0.	3.70E-10	8.65E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
84	2.40	0.	0.	0.	0.	7.26E-08	5.36E-10	0.	0.	3.70E-10	8.71E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
85	2.30	0.	0.	0.	0.	6.17E-08	4.47E-10	0.	0.	3.70E-10	8.77E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
86	2.20	0.	0.	0.	0.	5.08E-08	3.58E-10	0.	0.	3.70E-10	8.83E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
87	2.10	0.	0.	0.	0.	4.00E-08	2.69E-10	0.	0.	3.70E-10	8.89E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
88	2.00	0.	0.	0.	0.	2.91E-08	1.80E-10	0.	0.	3.70E-10	8.95E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
89	1.90	0.	0.	0.	0.	1.82E-08	9.11E-11	0.	0.	3.70E-10	9.01E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
90	1.80	0.	0.	0.	0.	7.14E-09	4.26E-11	0.	0.	3.70E-10	9.07E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
91	1.70	0.	0.	0.	0.	6.05E-09	3.37E-11	0.	0.	3.70E-10	9.13E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
92	1.60	0.	0.	0.	0.	4.96E-09	2.48E-11	0.	0.	3.70E-10	9.19E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
93	1.50	0.	0.	0.	0.	3.87E-09	1.59E-11	0.	0.	3.70E-10	9.25E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
94	1.40	0.	0.	0.	0.	2.78E-09	7.00E-12	0.	0.	3.70E-10	9.31E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
95	1.30	0.	0.	0.	0.	1.69E-09	3.11E-12	0.	0.	3.70E-10	9.37E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
96	1.20	0.	0.	0.	0.	6.05E-10	1.22E-12	0.	0.	3.70E-10	9.43E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
97	1.10	0.	0.	0.	0.	4.96E-10	9.11E-13	0.	0.	3.70E-10	9.49E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
98	1.00	0.	0.	0.	0.	3.87E-10	6.00E-13	0.	0.	3.70E-10	9.55E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
99	0.90	0.	0.	0.	0.	2.78E-10	3.11E-13	0.	0.	3.70E-10	9.61E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
100	0.80	0.	0.	0.	0.	1.69E-10	1.22E-13	0.	0.	3.70E-10	9.67E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
101	0.70	0.	0.	0.	0.	6.05E-11	4.26E-14	0.	0.	3.70E-10	9.73E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		
102	0.60	0.	0.	0.	0.	4.96E-11	3.11E-14	0.	0.	3.70E-10	9.79E-07	3.10E-11	4.60E-10	8.69E-09	1.23E-04		

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-B ENERGY BANDS	W2 1ST POS.	W2 2ND POS.	W2 3RD POS.	N2 1ST NEG.	N2 2ND NEG.	N2 3RD NEG.	BEA	NO GAMMA	NO VIB-ROT	NO 2	Q- PHOTO-DET (IONS)	FREE-FREE P.E.	N P.E.	O P.E.	TOTAL AIR
52	5.30	6.27E-08	0.	0.	0.	0.	4.83E-07	4.03E-06	0.	0.	1.25E-08	7.64E-13	1.56E-10	7.87E-10	4.58E-06
53	5.30	6.10E-08	0.	0.	0.	0.	6.20E-07	4.44E-06	0.	0.	1.26E-08	8.09E-13	1.57E-10	8.02E-10	5.13E-06
54	5.40	5.94E-08	0.	0.	0.	0.	4.78E-07	2.02E-06	0.	0.	1.27E-08	8.55E-13	1.57E-10	8.17E-10	2.57E-06
55	5.30	5.36E-08	0.	0.	0.	0.	4.94E-07	1.92E-06	0.	0.	1.28E-08	9.04E-13	1.58E-10	8.34E-10	4.47E-06
56	5.20	3.96E-08	0.	0.	0.	0.	4.68E-07	1.67E-06	0.	0.	1.29E-08	9.57E-13	1.59E-10	8.56E-10	2.20E-06
57	5.10	2.99E-08	0.	0.	0.	0.	4.48E-07	2.39E-06	0.	0.	1.30E-08	1.01E-12	1.62E-10	8.78E-10	2.49E-06
58	5.00	2.09E-08	0.	0.	0.	0.	3.65E-07	2.00E-06	0.	0.	1.31E-08	1.05E-12	1.66E-10	9.00E-10	2.49E-06
59	4.90	1.78E-08	0.	0.	0.	0.	3.73E-07	1.65E-06	0.	0.	1.32E-08	1.10E-12	1.70E-10	9.22E-10	2.55E-06
60	4.80	1.77E-08	0.	0.	0.	0.	3.84E-07	1.55E-06	0.	0.	1.33E-08	1.14E-12	1.74E-10	9.44E-10	1.96E-06
61	4.70	1.77E-08	0.	0.	0.	0.	3.42E-07	1.07E-06	0.	0.	1.34E-08	1.19E-12	1.77E-10	9.67E-10	1.45E-06
62	4.60	1.96E-08	0.	0.	0.	0.	3.27E-07	1.07E-06	0.	0.	1.35E-08	1.24E-12	1.81E-10	9.90E-10	1.45E-06
63	4.50	1.81E-08	0.	0.	0.	0.	2.61E-07	6.47E-07	0.	0.	1.36E-08	1.29E-12	1.84E-10	1.01E-09	9.45E-07
64	4.40	1.48E-08	0.	0.	0.	0.	2.43E-07	5.45E-07	0.	0.	1.37E-08	1.34E-12	1.88E-10	1.01E-09	8.41E-07
65	4.30	1.39E-08	0.	0.	0.	0.	2.04E-07	2.51E-07	0.	0.	1.38E-08	1.39E-12	1.92E-10	1.06E-09	5.16E-07
66	4.20	1.17E-08	0.	0.	0.	0.	2.01E-07	2.34E-07	0.	0.	1.39E-08	1.44E-12	1.96E-10	1.12E-11	6.43E-07
67	4.10	9.92E-09	0.	0.	0.	0.	1.70E-07	5.64E-08	0.	0.	1.40E-08	1.49E-12	1.99E-10	1.17E-11	2.99E-07
68	4.00	6.14E-09	0.	0.	0.	0.	1.49E-07	4.09E-08	0.	0.	1.41E-08	1.54E-12	2.03E-10	1.22E-11	4.84E-07
69	3.90	5.97E-09	0.	0.	0.	0.	1.46E-07	2.09E-08	0.	0.	1.42E-08	1.59E-12	2.07E-10	1.27E-11	2.98E-07
70	3.80	6.16E-09	0.	0.	0.	0.	1.33E-07	1.95E-07	0.	0.	1.43E-08	1.64E-12	2.11E-10	1.32E-11	4.48E-07
71	3.70	4.52E-09	0.	0.	0.	0.	9.91E-07	7.83E-08	0.	0.	1.44E-08	1.69E-12	2.15E-10	1.37E-11	3.41E-07
72	3.60	3.64E-09	0.	0.	0.	0.	9.91E-07	6.56E-08	0.	0.	1.45E-08	1.74E-12	2.19E-10	1.42E-11	3.48E-07
73	3.50	3.02E-09	0.	0.	0.	0.	1.60E-07	9.59E-07	0.	0.	1.46E-08	1.79E-12	2.23E-10	1.47E-11	1.95E-06
74	3.40	2.33E-09	0.	0.	0.	0.	9.34E-08	2.51E-07	0.	0.	1.47E-08	1.84E-12	2.27E-10	1.52E-11	1.46E-06
75	3.30	1.73E-09	0.	0.	0.	0.	7.13E-08	2.51E-07	0.	0.	1.48E-08	1.89E-12	2.31E-10	1.57E-11	3.28E-07
76	3.20	1.29E-09	0.	0.	0.	0.	2.90E-08	1.14E-04	0.	0.	1.49E-08	1.94E-12	2.35E-10	1.62E-11	1.54E-06
77	3.10	1.06E-09	0.	0.	0.	0.	2.46E-08	4.01E-04	0.	0.	1.50E-08	1.99E-12	2.39E-10	1.67E-11	1.25E-07
78	3.00	8.28E-10	0.	0.	0.	0.	1.85E-08	2.85E-07	0.	0.	1.51E-08	2.04E-12	2.43E-10	1.72E-11	1.25E-07
79	2.90	5.90E-10	0.	0.	0.	0.	1.85E-08	2.51E-07	0.	0.	1.52E-08	2.09E-12	2.47E-10	1.77E-11	3.97E-07
80	2.80	5.48E-10	0.	0.	0.	0.	2.78E-09	3.77E-04	0.	0.	1.53E-08	2.14E-12	2.51E-10	1.82E-11	2.79E-07
81	2.70	2.78E-10	0.	0.	0.	0.	1.27E-09	1.31E-07	0.	0.	1.54E-08	2.19E-12	2.55E-10	1.87E-11	5.42E-07
82	2.60	9.65E-11	0.	0.	0.	0.	6.33E-10	1.43E-04	0.	0.	1.55E-08	2.24E-12	2.59E-10	1.92E-11	1.42E-07
83	2.50	5.95E-12	0.	0.	0.	0.	10.00E-11	6.05E-04	0.	0.	1.56E-08	2.29E-12	2.63E-10	1.97E-11	2.36E-07
84	2.40	0.	0.	0.	0.	0.	7.72E-09	0.	0.	1.57E-08	2.34E-12	2.67E-10	2.02E-11	1.33E-08	
85	2.30	0.	0.	0.	0.	0.	6.52E-09	0.	0.	1.58E-08	2.39E-12	2.71E-10	2.07E-11	2.41E-08	
86	2.20	0.	0.	0.	0.	0.	1.07E-07	0.	0.	1.59E-08	2.44E-12	2.75E-10	2.12E-11	7.22E-08	
87	2.10	0.	0.	0.	0.	0.	2.32E-07	0.	0.	1.60E-08	2.49E-12	2.79E-10	2.17E-11	1.42E-07	
88	2.00	0.	0.	0.	0.	0.	2.85E-07	0.	0.	1.61E-08	2.54E-12	2.83E-10	2.22E-11	2.59E-07	
89	1.90	0.	0.	0.	0.	0.	9.45E-07	0.	0.	1.62E-08	2.59E-12	2.87E-10	2.27E-11	8.47E-07	
90	1.80	0.	0.	0.	0.	0.	8.41E-07	0.	0.	1.63E-08	2.64E-12	2.91E-10	2.32E-11	8.47E-07	
91	1.70	0.	0.	0.	0.	0.	9.61E-07	0.	0.	1.64E-08	2.69E-12	2.95E-10	2.37E-11	8.47E-07	
92	1.60	0.	0.	0.	0.	0.	6.72E-07	0.	0.	1.65E-08	2.74E-12	2.99E-10	2.42E-11	9.47E-07	
93	1.50	0.	0.	0.	0.	0.	8.23E-07	0.	0.	1.66E-08	2.79E-12	3.03E-10	2.47E-11	6.77E-07	
94	1.40	0.	0.	0.	0.	0.	1.02E-06	0.	0.	1.67E-08	2.84E-12	3.07E-10	2.52E-11	6.77E-07	
95	1.30	0.	0.	0.	0.	0.	6.46E-07	0.	0.	1.68E-08	2.89E-12	3.11E-10	2.57E-11	1.42E-06	
96	1.20	0.	0.	0.	0.	0.	7.80E-07	0.	0.	1.69E-08	2.94E-12	3.15E-10	2.62E-11	6.46E-07	
97	1.10	0.	0.	0.	0.	0.	5.09E-07	0.	0.	1.70E-08	2.99E-12	3.19E-10	2.67E-11	7.89E-07	
98	1.00	0.	0.	0.	0.	0.	5.11E-07	0.	0.	1.71E-08	3.04E-12	3.23E-10	2.72E-11	5.09E-07	
99	0.90	0.	0.	0.	0.	0.	3.76E-07	0.	0.	1.72E-08	3.09E-12	3.27E-10	2.77E-11	5.09E-07	
100	0.80	0.	0.	0.	0.	0.	1.66E-07	0.	0.	1.73E-08	3.14E-12	3.31E-10	2.82E-11	3.77E-07	
101	0.70	0.	0.	0.	0.	0.	4.84E-08	0.	0.	1.74E-08	3.19E-12	3.35E-10	2.87E-11	1.71E-07	
102	0.60	0.	0.	0.	0.	0.	7.76E-10	0.	0.	1.75E-08	3.24E-12	3.39E-10	2.92E-11	5.22E-08	
103	0.50	0.	0.	0.	0.	0.	7.42E-09	0.	0.	1.76E-08	3.29E-12	3.43E-10	2.97E-11	9.18E-09	

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		6000.	DENSITY (GM/CC) 1.293E-07 (10-06-05 NORMAL)		D- PHOTO-DET (10MS)		N	O		TOTAL AIR	
PHOTON ENERGY E.V.	Q2 S-B BANDS	Q2 S-R CONT.	N2 B-W NO. 1	NO RETA	NO GAMMA	NO 2	FREE-2FREE	P.F.	P.F.		
1 10.70 0.		0.	1.41E-05	0.	0	0.	2.72E-10 5.79E-15	1.09E-10 5.89E-11	1.11E-05		
2 10.60 0.		0.	1.11E-05	0.	0	0.	2.72E-10 5.06E-15	1.35E-10 5.06E-11	1.11E-05		
3 10.50 0.		0.	1.03E-05	0.	0	0.	2.72E-10 4.13E-15	1.66E-10 5.07E-11	1.03E-05		
4 10.40 0.		0.	8.58E-06	0.	0	0.	2.72E-10 3.31E-15	1.84E-10 5.08E-11	8.58E-06		
5 10.30 0.		0.	6.44E-06	0.	0	0.	2.72E-10 2.59E-15	1.87E-10 5.10E-11	6.44E-06		
6 10.20 0.		0.	6.08E-06	0.	0	0.	2.74E-10 2.08E-15	1.07E-10 5.11E-11	6.08E-06		
7 10.10 0.		0.	5.28E-06	0.	0	0.	2.74E-10 1.69E-15	1.07E-10 5.12E-11	5.28E-06		
8 10.00 0.		0.	3.78E-06	0.	0	0.	2.75E-10 7.11E-15	1.07E-10 5.13E-11	3.78E-06		
9 9.90 0.		0.	3.72E-06	0.	0	0.	2.75E-10 7.32E-15	1.07E-10 5.14E-11	3.72E-06		
10 9.80 0.		0.	3.03E-06	0.	0	0.	2.76E-10 7.59E-15	1.08E-10 5.15E-11	3.03E-06		
11 9.70 0.		0.	2.17E-06	0.	0	0.	2.76E-10 7.79E-15	1.08E-10 5.16E-11	2.17E-06		
12 9.60 0.		0.	2.32E-06	0.	0	0.	2.77E-10 8.86E-15	1.08E-10 5.17E-11	2.32E-06		
13 9.50 0.		0.	1.62E-06	0.	0	0.	2.77E-10 8.29E-15	1.08E-10 5.18E-11	1.62E-06		
14 9.40 0.		0.	7.30E-07	0.	0	0.	2.78E-10 8.59E-15	1.08E-10 5.19E-11	7.30E-07		
15 9.30 0.		0.	7.97E-07	0.	0	0.	2.79E-10 8.04E-15	1.08E-10 5.20E-11	7.97E-07		
16 9.20 0.		0.	8.63E-07	0.	0	0.	2.80E-10 8.14E-15	1.08E-10 5.21E-11	8.63E-07		
17 9.10 0.		0.	1.06E-06	0.	0	0.	2.81E-10 9.44E-15	1.08E-10 5.22E-11	1.06E-06		
18 9.00 0.		0.	1.28E-06	0.	0	0.	2.82E-10 9.70E-15	1.08E-10 5.23E-11	1.28E-06		
19 8.90 0.		0.	1.50E-06	0.	0	0.	2.83E-10 1.01E-14	1.08E-10 5.24E-11	1.50E-06		
20 8.80 0.		0.	1.56E-06	0.	0	0.	2.84E-10 1.08E-14	1.08E-10 5.25E-11	1.56E-06		
21 8.70 0.		0.	1.42E-06	0.	0	0.	2.85E-10 1.08E-14	1.08E-10 5.26E-11	1.42E-06		
22 8.60 0.		0.	1.37E-06	0.	0	0.	2.86E-10 1.12E-14	1.08E-10 5.27E-11	1.37E-06		
23 8.50 0.		0.	1.37E-06	0.	0	0.	2.87E-10 1.16E-14	1.08E-10 5.28E-11	1.37E-06		
24 8.40 0.		0.	1.32E-06	0.	0	0.	2.89E-10 1.29E-14	1.08E-10 5.29E-11	1.32E-06		
25 8.30 0.		0.	1.26E-06	0.	0	0.	2.90E-10 1.29E-14	1.08E-10 5.32E-11	1.26E-06		
26 8.20 0.		0.	1.21E-06	0.	0	0.	2.92E-10 1.29E-14	1.08E-10 5.40E-11	1.21E-06		
27 8.10 0.		0.	1.16E-06	0.	0	0.	2.93E-10 1.34E-14	1.08E-10 5.47E-11	1.16E-06		
28 8.00 0.		0.	1.11E-06	0.	0	0.	2.95E-10 1.39E-14	1.08E-10 5.55E-11	1.11E-06		
29 7.90 0.		0.	1.06E-06	0.	0	0.	2.96E-10 1.45E-14	1.08E-10 5.62E-11	1.06E-06		
30 7.80 0.		0.	1.00E-06	0.	0	0.	2.98E-10 1.59E-14	1.08E-10 5.69E-11	1.00E-06		
31 7.70 0.		0.	9.43E-07	0.	0	0.	2.99E-10 1.59E-14	1.08E-10 5.77E-11	9.43E-07		
32 7.60 0.		0.	8.85E-07	0.	0	0.	3.01E-10 1.65E-14	1.08E-10 5.84E-11	8.85E-07		
33 7.50 0.		0.	8.27E-07	0.	0	0.	3.02E-10 1.65E-14	1.08E-10 5.92E-11	8.27E-07		
34 7.40 0.		0.	7.69E-07	0.	0	0.	3.04E-10 1.78E-14	1.08E-10 6.07E-11	7.69E-07		
35 7.30 0.		0.	7.12E-07	0.	0	0.	3.06E-10 1.83E-14	1.08E-10 6.07E-11	7.12E-07		
36 7.20 0.		0.	6.59E-07	0.	0	0.	3.07E-10 1.91E-14	1.08E-10 6.14E-11	6.59E-07		
37 7.10 0.		0.	6.07E-07	0.	0	0.	3.10E-10 1.96E-14	1.08E-10 6.22E-11	6.07E-07		
38 7.00 0.		0.	5.56E-07	0.	0	0.	3.12E-10 2.00E-14	1.08E-10 6.29E-11	5.56E-07		
39 6.90 0.		0.	5.01E-07	0.	0	0.	3.15E-10 2.07E-14	1.08E-10 6.36E-11	5.01E-07		
40 6.80 0.		0.	4.44E-07	0.	0	0.	3.17E-10 2.27E-14	1.08E-10 6.44E-11	4.44E-07		
41 6.70 0.		0.	3.86E-07	0.	0	0.	3.20E-10 2.39E-14	1.08E-10 6.52E-11	3.86E-07		
42 6.60 0.		0.	3.31E-07	0.	0	0.	3.22E-10 2.48E-14	1.08E-10 6.59E-11	3.31E-07		
43 6.50 0.		0.	2.84E-07	0.	0	0.	3.25E-10 2.60E-14	1.08E-10 6.67E-11	2.84E-07		
44 6.40 0.		0.	2.40E-07	0.	0	0.	3.27E-10 2.73E-14	1.08E-10 6.75E-11	2.40E-07		
45 6.30 0.		0.	2.07E-07	0.	0	0.	3.30E-10 2.86E-14	1.08E-10 6.85E-11	2.07E-07		
46 6.20 0.		0.	1.80E-07	0.	0	0.	3.33E-10 3.00E-14	1.08E-10 6.99E-11	1.80E-07		
47 6.10 0.		0.	1.59E-07	0.	0	0.	3.35E-10 3.15E-14	1.08E-10 7.14E-11	1.59E-07		
48 6.00 0.		0.	1.39E-07	0.	0	0.	3.38E-10 3.31E-14	1.08E-10 7.29E-11	1.39E-07		
49 5.90 0.		0.	1.19E-07	0.	0	0.	3.40E-10 3.48E-14	1.08E-10 7.44E-11	1.19E-07		
50 5.80 0.		0.	1.00E-07	0.	0	0.	3.43E-10 3.66E-14	1.08E-10 7.59E-11	1.00E-07		
51 5.70 0.		0.	8.37E-08	0.	0	0.	3.45E-10 3.86E-14	1.08E-10 7.74E-11	8.37E-08		

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

[illegible]

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)				DENSITY (GM/CC)				1.2932-08 (10.05-06 NORMAL)				TOTAL AIR			
PHOTON ENERGY E.V.	O2 S-R BANDS	O2 S-R CONT.	W2 B-W NO. 1	NO BETA	AO GAMMA	NO BETA	AO GAMMA	NO BETA	AO GAMMA	NO BETA	AO GAMMA	NO BETA	AO GAMMA	NO BETA	AO GAMMA
1 10.70 0.	0.	0.	1.09E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2 10.60 0.	0.	0.	1.33E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3 10.50 0.	0.	0.	1.23E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4 10.40 0.	0.	0.	1.03E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5 10.30 0.	0.	0.	7.4E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6 10.20 0.	0.	0.	7.9E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7 10.10 0.	0.	0.	6.25E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8 10.00 0.	0.	0.	4.51E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9 9.90 0.	0.	0.	4.66E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10 9.80 0.	0.	0.	3.64E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11 9.70 0.	0.	0.	2.61E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12 9.60 0.	0.	0.	2.0E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13 9.50 0.	0.	0.	6.03E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14 9.40 0.	0.	0.	7.29E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15 9.30 0.	0.	0.	7.95E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16 9.20 0.	0.	0.	8.67E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17 9.10 0.	0.	0.	1.04E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18 9.00 0.	0.	0.	1.24E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19 8.90 0.	0.	0.	1.49E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20 8.80 0.	0.	0.	1.55E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21 8.70 0.	0.	0.	1.49E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22 8.60 0.	0.	0.	1.42E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23 8.50 0.	0.	0.	1.37E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24 8.40 0.	0.	0.	1.32E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25 8.30 0.	0.	0.	1.26E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26 8.20 0.	0.	0.	1.21E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27 8.10 0.	0.	0.	1.16E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28 8.00 0.	0.	0.	1.11E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29 7.90 0.	0.	0.	1.05E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30 7.80 0.	0.	0.	9.94E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31 7.70 0.	0.	0.	9.41E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32 7.60 0.	0.	0.	8.83E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33 7.50 0.	0.	0.	8.25E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34 7.40 0.	0.	0.	7.64E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35 7.30 0.	0.	0.	7.11E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36 7.20 0.	0.	0.	6.56E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37 7.10 0.	0.	0.	6.05E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38 7.00 0.	0.	0.	1.36E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39 6.90 0.	0.	0.	1.08E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40 6.80 0.	0.	0.	8.94E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41 6.70 0.	0.	0.	6.73E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42 6.60 0.	0.	0.	5.18E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43 6.50 0.	0.	0.	3.41E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44 6.40 0.	0.	0.	1.68E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45 6.30 0.	0.	0.	8.25E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46 6.20 0.	0.	0.	3.66E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47 6.10 0.	0.	0.	1.68E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48 6.00 0.	0.	0.	2.71E-13	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49 5.90 0.	0.	0.	1.90E-14	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50 5.80 0.	0.	0.	4.50E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51 5.70 0.	0.	0.	5.36E-12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 6000. DENSITY (GM/CC) 1.293E-08 (10.0E-04 NORMAL)

PHOTON 02 S-R ENERGY BANDS	N2 1ST POS.	N2 2ND POS.	N2 3RD POS.	BETA	NO GAMMA	NO VIB-ROT	NO 2	PHOTO-DET (ICONS)	FREE-FREE P.E.	0 P.F.	TOTAL AIR
52	5.60	6.29E-12	0.	0.	8.20E-11	6.84E-10	0.	0.	8.57E-12	2.45E-12	7.08E-12
53	5.50	6.12E-12	0.	0.	1.05E-11	7.53E-10	0.	0.	8.61E-12	3.74E-12	2.65E-12
54	5.40	5.96E-12	0.	0.	8.12E-11	3.43E-10	0.	0.	8.66E-12	3.96E-12	2.65E-12
55	5.30	5.80E-12	0.	0.	8.38E-11	6.03E-10	0.	0.	8.71E-12	4.59E-12	2.67E-12
56	5.20	5.64E-12	0.	0.	8.20E-11	2.03E-10	0.	0.	8.77E-12	4.32E-12	2.69E-12
57	5.10	5.48E-12	0.	0.	7.61E-11	4.04E-10	0.	0.	8.84E-12	4.70E-12	2.73E-12
58	5.00	5.32E-12	0.	0.	6.70E-11	3.40E-10	0.	0.	8.92E-12	4.99E-12	2.76E-12
59	4.90	5.16E-12	0.	0.	6.33E-11	2.79E-10	0.	0.	9.00E-12	5.30E-12	2.80E-12
60	4.80	5.00E-12	0.	0.	6.02E-11	2.03E-10	0.	0.	9.08E-12	5.62E-12	2.84E-12
61	4.70	4.84E-12	0.	0.	5.71E-11	1.82E-10	0.	0.	9.16E-12	5.94E-12	2.88E-12
62	4.60	4.68E-12	0.	0.	5.40E-11	1.61E-10	0.	0.	9.24E-12	6.26E-12	2.92E-12
63	4.50	4.52E-12	0.	0.	5.10E-11	1.40E-10	0.	0.	9.32E-12	6.58E-12	2.96E-12
64	4.40	4.36E-12	0.	0.	4.80E-11	1.19E-10	0.	0.	9.40E-12	6.90E-12	3.00E-12
65	4.30	4.20E-12	0.	0.	4.50E-11	9.75E-11	0.	0.	9.48E-12	7.22E-12	3.04E-12
66	4.20	4.04E-12	0.	0.	4.20E-11	7.59E-11	0.	0.	9.56E-12	7.54E-12	3.08E-12
67	4.10	3.88E-12	0.	0.	3.90E-11	5.44E-11	0.	0.	9.64E-12	7.86E-12	3.12E-12
68	4.00	3.72E-12	0.	0.	3.60E-11	3.29E-11	0.	0.	9.72E-12	8.18E-12	3.16E-12
69	3.90	3.56E-12	0.	0.	3.30E-11	1.08E-10	0.	0.	9.80E-12	8.50E-12	3.20E-12
70	3.80	3.40E-12	0.	0.	3.00E-11	8.64E-11	0.	0.	9.88E-12	8.82E-12	3.24E-12
71	3.70	3.24E-12	0.	0.	2.70E-11	6.49E-11	0.	0.	9.96E-12	9.14E-12	3.28E-12
72	3.60	3.08E-12	0.	0.	2.40E-11	4.34E-11	0.	0.	1.00E-12	9.46E-12	3.32E-12
73	3.50	2.92E-12	0.	0.	2.10E-11	2.19E-11	0.	0.	1.01E-12	9.78E-12	3.36E-12
74	3.40	2.76E-12	0.	0.	1.80E-11	1.08E-10	0.	0.	1.02E-12	1.01E-12	3.40E-12
75	3.30	2.60E-12	0.	0.	1.50E-11	8.64E-11	0.	0.	1.03E-12	1.04E-12	3.44E-12
76	3.20	2.44E-12	0.	0.	1.20E-11	6.49E-11	0.	0.	1.04E-12	1.07E-12	3.48E-12
77	3.10	2.28E-12	0.	0.	9.00E-12	4.34E-11	0.	0.	1.05E-12	1.10E-12	3.52E-12
78	3.00	2.12E-12	0.	0.	6.00E-12	2.19E-11	0.	0.	1.06E-12	1.13E-12	3.56E-12
79	2.90	1.96E-12	0.	0.	3.00E-12	1.08E-10	0.	0.	1.07E-12	1.16E-12	3.60E-12
80	2.80	1.80E-12	0.	0.	1.00E-12	8.64E-11	0.	0.	1.08E-12	1.19E-12	3.64E-12
81	2.70	1.64E-12	0.	0.	8.00E-13	6.49E-11	0.	0.	1.09E-12	1.22E-12	3.68E-12
82	2.60	1.48E-12	0.	0.	6.00E-13	4.34E-11	0.	0.	1.10E-12	1.25E-12	3.72E-12
83	2.50	1.32E-12	0.	0.	4.00E-13	2.19E-11	0.	0.	1.11E-12	1.28E-12	3.76E-12
84	2.40	1.16E-12	0.	0.	3.00E-13	1.08E-10	0.	0.	1.12E-12	1.31E-12	3.80E-12
85	2.30	1.00E-12	0.	0.	2.00E-13	8.64E-11	0.	0.	1.13E-12	1.34E-12	3.84E-12
86	2.20	8.40E-13	0.	0.	1.00E-13	6.49E-11	0.	0.	1.14E-12	1.37E-12	3.88E-12
87	2.10	6.80E-13	0.	0.	8.00E-14	4.34E-11	0.	0.	1.15E-12	1.40E-12	3.92E-12
88	2.00	5.20E-13	0.	0.	6.00E-14	2.19E-11	0.	0.	1.16E-12	1.43E-12	3.96E-12
89	1.90	3.60E-13	0.	0.	4.00E-14	1.08E-10	0.	0.	1.17E-12	1.46E-12	4.00E-12
90	1.80	2.00E-13	0.	0.	3.00E-14	8.64E-11	0.	0.	1.18E-12	1.49E-12	4.04E-12
91	1.70	1.40E-13	0.	0.	2.00E-14	6.49E-11	0.	0.	1.19E-12	1.52E-12	4.08E-12
92	1.60	8.00E-14	0.	0.	1.00E-14	4.34E-11	0.	0.	1.20E-12	1.55E-12	4.12E-12
93	1.50	6.40E-14	0.	0.	8.00E-15	2.19E-11	0.	0.	1.21E-12	1.58E-12	4.16E-12
94	1.40	4.80E-14	0.	0.	6.00E-15	1.08E-10	0.	0.	1.22E-12	1.61E-12	4.20E-12
95	1.30	3.20E-14	0.	0.	4.00E-15	8.64E-11	0.	0.	1.23E-12	1.64E-12	4.24E-12
96	1.20	1.60E-14	0.	0.	3.00E-15	6.49E-11	0.	0.	1.24E-12	1.67E-12	4.28E-12
97	1.10	1.00E-14	0.	0.	2.00E-15	4.34E-11	0.	0.	1.25E-12	1.70E-12	4.32E-12
98	1.00	8.00E-15	0.	0.	1.00E-15	2.19E-11	0.	0.	1.26E-12	1.73E-12	4.36E-12
99	0.90	6.40E-15	0.	0.	8.00E-16	1.08E-10	0.	0.	1.27E-12	1.76E-12	4.40E-12
100	0.80	4.80E-15	0.	0.	6.00E-16	8.64E-11	0.	0.	1.28E-12	1.79E-12	4.44E-12
101	0.70	3.20E-15	0.	0.	4.00E-16	6.49E-11	0.	0.	1.29E-12	1.82E-12	4.48E-12
102	0.60	1.60E-15	0.	0.	3.00E-16	4.34E-11	0.	0.	1.30E-12	1.85E-12	4.52E-12

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY BANDS E.V.	02 S-R CONT.	02 S-R	TEMPERATURE (DEGREES K)	4000.	DENSITY (G/CC) 1.293E-30 (18.0E-27 NORMAL)	NO BETA	NO GAMMA	NO 2	0- FREE-FREE (IONS)	N P.E.	0 TOTAL AIR P.E.		
1 10.76 0.	0.	0.	1.71E-09	0.	0.	0.	0.	0.	2.49E-13	4.91E-17	1.12E-12	5.82E-13	1.71E-09
2 10.60 0.	0.	0.	1.35E-09	0.	0.	0.	0.	0.	2.49E-13	5.89E-17	1.14E-12	5.82E-13	1.35E-09
3 10.53 0.	0.	0.	1.23E-09	0.	0.	0.	0.	0.	2.50E-13	5.20E-17	1.17E-12	5.84E-13	1.23E-09
4 10.40 0.	0.	0.	1.04E-09	0.	0.	0.	0.	0.	2.50E-13	5.39E-17	1.17E-12	5.84E-13	1.04E-09
5 10.30 0.	0.	0.	7.89E-10	0.	0.	0.	0.	0.	2.50E-13	5.51E-17	1.17E-12	5.84E-13	7.89E-10
6 10.20 0.	0.	0.	7.39E-10	0.	0.	0.	0.	0.	2.51E-13	5.40E-17	1.18E-12	5.87E-13	7.39E-10
7 10.10 0.	0.	0.	6.33E-10	0.	0.	0.	0.	0.	2.51E-13	5.39E-17	1.18E-12	5.87E-13	6.33E-10
8 10.00 0.	0.	0.	4.54E-10	0.	0.	0.	0.	0.	2.51E-13	6.03E-17	1.19E-12	5.89E-13	4.54E-10
9 9.90 0.	0.	0.	4.42E-10	0.	0.	0.	0.	0.	2.52E-13	6.21E-17	1.19E-12	5.10E-13	4.42E-10
10 9.80 0.	0.	0.	3.68E-10	0.	0.	0.	0.	0.	2.52E-13	6.41E-17	1.19E-12	5.11E-13	3.68E-10
11 9.70 0.	0.	0.	2.64E-10	0.	0.	0.	0.	0.	2.53E-13	6.61E-17	1.19E-12	5.12E-13	2.64E-10
12 9.60 0.	0.	0.	2.62E-10	0.	0.	0.	0.	0.	2.53E-13	6.82E-17	1.19E-12	5.13E-13	2.62E-10
13 9.50 0.	0.	0.	6.59E-13	0.	0.	0.	0.	0.	2.53E-13	7.04E-17	1.20E-12	5.14E-13	1.95E-10
14 9.40 0.	0.	0.	7.20E-13	0.	0.	0.	0.	0.	2.54E-13	7.29E-17	1.20E-12	5.15E-13	1.65E-10
15 9.30 0.	0.	0.	7.84E-13	0.	0.	0.	0.	0.	2.54E-13	7.59E-17	1.20E-12	5.15E-13	1.42E-10
16 9.20 0.	0.	0.	8.51E-13	0.	0.	0.	0.	0.	2.56E-13	7.79E-17	1.20E-12	5.17E-13	1.04E-10
17 9.10 0.	0.	0.	1.04E-12	0.	0.	0.	0.	0.	2.57E-13	8.01E-17	1.20E-12	5.18E-13	1.04E-10
18 9.00 0.	0.	0.	1.24E-12	0.	0.	0.	0.	0.	2.57E-13	8.18E-17	1.20E-12	5.19E-13	8.20E-11
19 8.90 0.	0.	0.	1.44E-12	0.	0.	0.	0.	0.	2.59E-13	8.50E-17	1.20E-12	5.20E-13	8.20E-11
20 8.80 0.	0.	0.	1.53E-12	0.	0.	0.	0.	0.	2.61E-13	8.89E-17	1.20E-12	5.22E-13	6.10E-11
21 8.70 0.	0.	0.	1.47E-12	0.	0.	0.	0.	0.	2.61E-13	9.17E-17	1.20E-12	5.23E-13	4.34E-11
22 8.60 0.	0.	0.	1.40E-12	0.	0.	0.	0.	0.	2.62E-13	9.49E-17	1.20E-12	5.24E-13	4.40E-11
23 8.50 0.	0.	0.	1.35E-12	0.	0.	0.	0.	0.	2.63E-13	9.83E-17	1.20E-12	5.25E-13	3.10E-11
24 8.40 0.	0.	0.	1.30E-12	0.	0.	0.	0.	0.	2.64E-13	1.02E-16	1.20E-12	5.26E-13	2.98E-11
25 8.30 0.	0.	0.	1.25E-12	0.	0.	0.	0.	0.	2.65E-13	1.06E-16	1.20E-12	5.26E-13	2.13E-11
26 8.20 0.	0.	0.	1.19E-12	0.	0.	0.	0.	0.	2.67E-13	1.10E-16	1.20E-12	5.30E-13	2.63E-11
27 8.10 0.	0.	0.	1.15E-12	0.	0.	0.	0.	0.	2.68E-13	1.14E-16	1.20E-12	5.43E-13	1.51E-11
28 8.00 0.	0.	0.	1.10E-12	0.	0.	0.	0.	0.	2.70E-13	1.18E-16	1.20E-12	5.51E-13	1.41E-11
29 7.90 0.	0.	0.	1.04E-12	0.	0.	0.	0.	0.	2.71E-13	1.23E-16	1.20E-12	5.58E-13	1.08E-11
30 7.80 0.	0.	0.	9.86E-13	0.	0.	0.	0.	0.	2.72E-13	1.27E-16	1.20E-12	5.66E-13	1.03E-11
31 7.70 0.	0.	0.	9.30E-13	0.	0.	0.	0.	0.	2.74E-13	1.32E-16	1.20E-12	5.73E-13	8.11E-12
32 7.60 0.	0.	0.	8.73E-13	0.	0.	0.	0.	0.	2.77E-13	1.38E-16	1.20E-12	5.80E-13	7.11E-12
33 7.50 0.	0.	0.	8.16E-13	0.	0.	0.	0.	0.	2.77E-13	1.43E-16	1.20E-12	5.88E-13	6.01E-12
34 7.40 0.	0.	0.	7.59E-13	0.	0.	0.	0.	0.	2.78E-13	1.49E-16	1.20E-12	5.95E-13	5.13E-12
35 7.30 0.	0.	0.	7.02E-13	0.	0.	0.	0.	0.	2.80E-13	1.55E-16	1.20E-12	6.03E-13	4.61E-12
36 7.20 0.	0.	0.	6.50E-13	0.	0.	0.	0.	0.	2.81E-13	1.62E-16	1.20E-12	6.10E-13	4.24E-12
37 7.10 0.	0.	0.	5.98E-13	0.	0.	0.	0.	0.	2.83E-13	1.69E-16	1.20E-12	6.17E-13	4.06E-12
38 6.90 2.41E-15 0.	0.	0.	1.10E-12	0.	0.	0.	0.	0.	2.86E-13	1.76E-16	1.20E-12	6.25E-13	5.14E-12
39 6.80 1.90E-15 0.	0.	0.	9.09E-13	0.	0.	0.	0.	0.	2.86E-13	1.84E-16	1.20E-12	6.32E-13	4.16E-12
40 6.70 1.25E-15 0.	0.	0.	6.61E-13	0.	0.	0.	0.	0.	2.89E-13	1.92E-16	1.20E-12	6.40E-13	6.13E-12
41 6.60 6.99E-16 0.	0.	0.	5.24E-13	0.	0.	0.	0.	0.	2.91E-13	2.01E-16	1.20E-12	6.47E-13	9.58E-12
42 6.50 3.64E-16 0.	0.	0.	3.45E-13	0.	0.	0.	0.	0.	2.93E-13	2.11E-16	1.20E-12	6.55E-13	4.87E-12
43 6.40 3.10E-16 0.	0.	0.	8.56E-14	0.	0.	0.	0.	0.	2.97E-13	2.21E-16	1.20E-12	6.62E-13	8.09E-12
44 6.30 1.06E-15 0.	0.	0.	3.35E-13	0.	0.	0.	0.	0.	3.00E-13	2.31E-16	1.20E-12	6.69E-13	1.25E-11
45 6.20 1.06E-15 0.	0.	0.	8.35E-14	0.	0.	0.	0.	0.	3.02E-13	2.42E-16	1.20E-12	6.76E-13	5.55E-12
46 6.10 1.06E-15 0.	0.	0.	3.50E-14	0.	0.	0.	0.	0.	3.04E-13	2.54E-16	1.20E-12	6.83E-13	7.94E-12
47 6.00 1.06E-15 0.	0.	0.	1.20E-14	0.	0.	0.	0.	0.	3.06E-13	2.67E-16	1.20E-12	6.90E-13	1.61E-11
48 5.90 2.52E-14 0.	0.	0.	2.75E-13	0.	0.	0.	0.	0.	3.08E-13	2.80E-16	1.20E-12	7.10E-13	1.61E-11
49 5.80 3.71E-14 0.	0.	0.	1.92E-16	0.	0.	0.	0.	0.	3.09E-13	2.94E-16	1.20E-12	7.24E-13	5.43E-12
50 5.70 5.08E-14 0.	0.	0.	4.56E-16	0.	0.	0.	0.	0.	3.09E-13	3.11E-16	1.20E-12	7.39E-13	6.50E-12
51 5.70 5.30E-14 0.	0.	0.	1.29E-12	0.	0.	0.	0.	0.	3.09E-13	3.27E-16	1.20E-12	7.60E-13	5.89E-12

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R		TEMPERATURE (DEGREES K)		7000.		DENSITY (GM/CC)		1.293E-32 (1.0E 31 NORMAL)		0		TOTAL AIR	
ENERGY BANDS		NO. 1		NO. 2		NO. 3		NO. 4		NO. 5		NO. 6	
E.V.		CONT.		BETA		GAMMA		PHOTO-DET (10MS)		FMSE-FREE		P.E.	
1	10.70	0.	2.09E 01	0.	0.	0.	0.	1.16E-01	8.24E-07	4.60E-01	5.00E-05	2.14E 01	0.
2	10.60	0.	1.70E 01	0.	0.	0.	0.	1.16E-01	8.48E-07	7.71E-06	5.00E-05	1.71E 01	0.
3	10.50	0.	1.80E 01	0.	0.	0.	0.	1.16E-01	8.72E-07	7.71E-06	5.00E-05	1.61E 01	0.
4	10.40	0.	1.37E 01	0.	0.	0.	0.	1.16E-01	8.96E-07	7.71E-06	5.11E-05	1.30E 01	0.
5	10.30	0.	1.07E 01	0.	0.	0.	0.	1.16E-01	9.24E-07	7.00E-06	5.11E-05	1.00E 01	0.
6	10.20	0.	1.02E 01	0.	0.	0.	0.	1.16E-01	9.52E-07	7.00E-06	5.11E-05	1.00E 01	0.
7	10.10	0.	8.95E 00	0.	0.	0.	0.	1.16E-01	9.81E-07	7.00E-06	5.11E-05	1.00E 01	0.
8	10.00	0.	6.74E 00	0.	0.	0.	0.	1.17E-01	1.01E-06	7.00E-06	5.13E-05	8.84E 00	0.
9	9.90	0.	4.72E 00	0.	0.	0.	0.	1.17E-01	1.04E-06	7.00E-06	5.13E-05	8.84E 00	0.
10	9.80	0.	5.65E 00	0.	0.	0.	0.	1.17E-01	1.07E-06	7.00E-06	5.14E-05	5.77E 00	0.
11	9.70	0.	4.28E 00	0.	0.	0.	0.	1.17E-01	1.11E-06	7.00E-06	5.14E-05	4.54E 00	0.
12	9.60	0.	4.52E 00	0.	0.	0.	0.	1.17E-01	1.14E-06	7.00E-06	5.14E-05	4.54E 00	0.
13	9.50	0.	7.32E 00	0.	0.	0.	0.	1.18E-01	1.18E-06	7.00E-06	5.14E-05	1.67E 01	0.
14	9.40	0.	8.22E 00	0.	0.	0.	0.	1.18E-01	1.22E-06	7.00E-06	5.17E-05	1.11E 01	0.
15	9.30	0.	9.12E 00	0.	0.	0.	0.	1.19E-01	1.26E-06	7.00E-06	5.16E-05	1.20E 01	0.
16	9.20	0.	1.00E 01	0.	0.	0.	0.	1.19E-01	1.30E-06	7.00E-06	5.16E-05	1.20E 01	0.
17	9.10	0.	1.22E 01	0.	0.	0.	0.	1.19E-01	1.34E-06	7.00E-06	5.16E-05	1.20E 01	0.
18	9.00	0.	1.46E 01	0.	0.	0.	0.	1.20E-01	1.38E-06	7.00E-06	5.16E-05	1.20E 01	0.
19	8.90	0.	1.70E 01	0.	0.	0.	0.	1.20E-01	1.42E-06	7.00E-06	5.16E-05	1.20E 01	0.
20	8.80	0.	1.74E 01	0.	0.	0.	0.	1.21E-01	1.46E-06	7.00E-06	5.21E-05	1.69E 01	0.
21	8.70	0.	1.69E 01	0.	0.	0.	0.	1.21E-01	1.50E-06	7.00E-06	5.22E-05	1.79E 01	0.
22	8.60	0.	1.63E 01	0.	0.	0.	0.	1.22E-01	1.54E-06	7.00E-06	5.22E-05	1.72E 01	0.
23	8.50	0.	1.57E 01	0.	0.	0.	0.	1.22E-01	1.58E-06	7.00E-06	5.23E-05	1.65E 01	0.
24	8.40	0.	1.53E 01	0.	0.	0.	0.	1.23E-01	1.62E-06	7.00E-06	5.24E-05	1.65E 01	0.
25	8.30	0.	1.47E 01	0.	0.	0.	0.	1.23E-01	1.66E-06	7.00E-06	5.24E-05	1.65E 01	0.
26	8.20	0.	1.42E 01	0.	0.	0.	0.	1.24E-01	1.70E-06	7.00E-06	5.24E-05	1.65E 01	0.
27	8.10	0.	1.37E 01	0.	0.	0.	0.	1.24E-01	1.74E-06	7.00E-06	5.24E-05	1.65E 01	0.
28	8.00	0.	1.32E 01	0.	0.	0.	0.	1.25E-01	1.78E-06	7.00E-06	5.24E-05	1.65E 01	0.
29	7.90	0.	1.26E 01	0.	0.	0.	0.	1.25E-01	1.82E-06	7.00E-06	5.24E-05	1.65E 01	0.
30	7.80	0.	1.20E 01	0.	0.	0.	0.	1.26E-01	1.86E-06	7.00E-06	5.24E-05	1.65E 01	0.
31	7.70	0.	1.13E 01	0.	0.	0.	0.	1.26E-01	1.90E-06	7.00E-06	5.24E-05	1.65E 01	0.
32	7.60	0.	1.04E 01	0.	0.	0.	0.	1.27E-01	1.94E-06	7.00E-06	5.24E-05	1.65E 01	0.
33	7.50	0.	9.90E 00	0.	0.	0.	0.	1.28E-01	1.98E-06	7.00E-06	5.24E-05	1.65E 01	0.
34	7.40	0.	9.32E 00	0.	0.	0.	0.	1.28E-01	2.02E-06	7.00E-06	5.24E-05	1.65E 01	0.
35	7.30	0.	8.80E 00	0.	0.	0.	0.	1.29E-01	2.06E-06	7.00E-06	5.24E-05	1.65E 01	0.
36	7.20	0.	8.16E 00	0.	0.	0.	0.	1.30E-01	2.10E-06	7.00E-06	5.24E-05	1.65E 01	0.
37	7.10	0.	7.52E 00	0.	0.	0.	0.	1.31E-01	2.14E-06	7.00E-06	5.24E-05	1.65E 01	0.
38	7.00	0.	4.70E-02	0.	0.	0.	0.	1.32E-01	2.18E-06	7.00E-06	5.24E-05	1.65E 01	0.
39	6.90	0.	3.07E-02	0.	0.	0.	0.	1.33E-01	2.22E-06	7.00E-06	5.24E-05	1.65E 01	0.
40	6.80	0.	3.51E-02	0.	0.	0.	0.	1.34E-01	2.26E-06	7.00E-06	5.24E-05	1.65E 01	0.
41	6.70	0.	2.57E-02	0.	0.	0.	0.	1.35E-01	2.30E-06	7.00E-06	5.24E-05	1.65E 01	0.
42	6.60	0.	2.04E-02	0.	0.	0.	0.	1.36E-01	2.34E-06	7.00E-06	5.24E-05	1.65E 01	0.
43	6.50	0.	1.40E-02	0.	0.	0.	0.	1.37E-01	2.38E-06	7.00E-06	5.24E-05	1.65E 01	0.
44	6.40	0.	7.05E-03	0.	0.	0.	0.	1.38E-01	2.42E-06	7.00E-06	5.24E-05	1.65E 01	0.
45	6.30	0.	1.95E-02	0.	0.	0.	0.	1.39E-01	2.46E-06	7.00E-06	5.24E-05	1.65E 01	0.
46	6.20	0.	3.27E-02	0.	0.	0.	0.	1.40E-01	2.50E-06	7.00E-06	5.24E-05	1.65E 01	0.
47	6.10	0.	1.23E-01	0.	0.	0.	0.	1.41E-01	2.54E-06	7.00E-06	5.24E-05	1.65E 01	0.
48	6.00	0.	3.08E-01	0.	0.	0.	0.	1.42E-01	2.58E-06	7.00E-06	5.24E-05	1.65E 01	0.
49	5.90	0.	1.49E-01	0.	0.	0.	0.	1.43E-01	2.62E-06	7.00E-06	5.24E-05	1.65E 01	0.
50	5.80	0.	6.50E-01	0.	0.	0.	0.	1.44E-01	2.66E-06	7.00E-06	5.24E-05	1.65E 01	0.
51	5.70	0.	7.06E-01	0.	0.	0.	0.	1.45E-01	2.70E-06	7.00E-06	5.24E-05	1.65E 01	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R ENERGY BANDS		TEMPERATURE (DEGREES K)		7000.		DENSITY (GM/CC)		1.293E-02 (1.0E 01 NORMAL)		O- PHOTO-DET (IONS)		FREC-FREE P.E.		D P.E.		TOTAL AIR	
1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	BETA	GAMMA	NO VIB-ROT	NO 2	NO 2	NO 2	NO 2	NO 2	NO 2	NO 2	NO 2	NO 2	NO 2	NO 2
52	5.60	0.45E-01	0.	0.	0.	3.32E-01	2.56E 00	0.	0.	1.23E-01	5.70E-06	1.85E-04	7.60E-05	3.80E 00			
53	5.50	0.40E-01	0.	0.	0.	4.17E-01	2.45E 00	0.	0.	1.24E-01	6.11E-06	1.86E-04	7.74E-05	4.03E 00			
54	5.40	0.35E-01	0.	0.	0.	3.32E-01	2.45E 00	0.	0.	1.25E-01	6.40E-06	1.88E-04	7.80E-05	2.71E 00			
55	5.30	0.30E-01	0.	0.	0.	3.43E-01	2.45E 00	0.	0.	1.25E-01	6.85E-06	1.89E-04	8.04E-05	3.49E 00			
56	5.20	0.25E-01	0.	0.	0.	3.55E-01	1.16E 00	0.	0.	1.26E-01	7.24E-06	1.91E-04	8.25E-05	2.15E 00			
57	5.10	0.20E-01	0.	0.	0.	3.55E-01	1.16E 00	0.	0.	1.27E-01	7.67E-06	1.93E-04	8.45E-05	2.57E 00			
58	5.00	0.15E-01	0.	0.	0.	2.72E-01	1.34E 00	0.	0.	1.28E-01	8.14E-06	2.00E-04	8.65E-05	2.11E 00			
59	4.90	0.10E-01	0.	0.	0.	2.72E-01	1.34E 00	0.	0.	1.29E-01	8.65E-06	2.03E-04	8.85E-05	1.94E 00			
60	4.80	0.05E-01	0.	0.	0.	2.72E-01	1.34E 00	0.	0.	1.30E-01	9.20E-06	2.10E-04	9.05E-05	1.64E 00			
61	4.70	0.03E-01	0.	0.	0.	2.00E-01	6.67E-01	0.	0.	1.31E-01	9.81E-06	2.18E-04	9.30E-05	1.55E 00			
62	4.60	0.02E-01	0.	0.	0.	2.00E-01	6.67E-01	0.	0.	1.32E-01	1.05E-05	2.19E-04	9.52E-05	1.54E 00			
63	4.50	0.01E-01	0.	0.	0.	2.13E-01	5.45E-01	0.	0.	1.33E-01	1.12E-05	2.26E-04	9.75E-05	1.24E 00			
64	4.40	0.00E-01	0.	0.	0.	2.02E-01	4.34E-01	0.	0.	1.34E-01	1.20E-05	2.32E-04	9.97E-05	1.07E 00			
65	4.30	0.00E-01	0.	0.	0.	1.74E-01	2.17E-01	0.	0.	1.35E-01	1.29E-05	2.39E-04	1.02E-04	9.52E-01			
66	4.20	0.00E-01	0.	0.	0.	1.74E-01	2.17E-01	0.	0.	1.36E-01	1.37E-05	2.46E-04	1.04E-04	7.48E-01			
67	4.10	0.00E-01	0.	0.	0.	1.53E-01	4.70E-02	0.	0.	1.37E-01	1.46E-05	2.51E-04	1.06E-04	5.31E-01			
68	4.00	0.00E-01	0.	0.	0.	1.37E-01	3.50E-02	0.	0.	1.38E-01	1.56E-05	2.57E-04	1.08E-04	5.07E-01			
69	3.90	0.00E-01	0.	0.	0.	1.09E-01	1.00E-02	0.	0.	1.39E-01	1.72E-05	1.64E-04	7.25E-05	4.02E-01			
70	3.80	0.00E-01	0.	0.	0.	1.09E-01	1.00E-02	0.	0.	1.40E-01	1.86E-05	1.67E-04	7.42E-05	3.97E-01			
71	3.70	0.00E-01	0.	0.	0.	1.14E-01	0.	0.	0.	1.41E-01	2.01E-05	1.71E-04	7.69E-05	3.46E-01			
72	3.60	0.00E-01	0.	0.	0.	1.14E-01	0.	0.	0.	1.42E-01	2.16E-05	1.76E-04	7.96E-05	3.07E-01			
73	3.50	0.00E-01	0.	0.	0.	1.14E-01	0.	0.	0.	1.43E-01	2.30E-05	1.81E-04	8.23E-05	2.68E-01			
74	3.40	0.00E-01	0.	0.	0.	1.14E-01	0.	0.	0.	1.44E-01	2.45E-05	1.86E-04	8.50E-05	2.29E-01			
75	3.30	0.00E-01	0.	0.	0.	1.14E-01	0.	0.	0.	1.45E-01	2.60E-05	1.91E-04	8.77E-05	1.90E-01			
76	3.20	0.00E-01	0.	0.	0.	1.14E-01	0.	0.	0.	1.46E-01	2.75E-05	1.96E-04	9.04E-05	1.51E-01			
77	3.10	0.00E-01	0.	0.	0.	1.14E-01	0.	0.	0.	1.47E-01	2.90E-05	2.01E-04	9.31E-05	1.12E-01			
78	3.00	0.00E-01	0.	0.	0.	1.14E-01	0.	0.	0.	1.48E-01	3.05E-05	2.06E-04	9.58E-05	7.35E-02			
79	2.90	0.00E-01	0.	0.	0.	1.14E-01	0.	0.	0.	1.49E-01	3.20E-05	2.11E-04	9.85E-05	5.49E-02			
80	2.80	0.00E-01	0.	0.	0.	1.14E-01	0.	0.	0.	1.50E-01	3.35E-05	2.16E-04	1.01E-04	4.60E-02			
81	2.70	0.00E-01	0.	0.	0.	1.14E-01	0.	0.	0.	1.51E-01	3.50E-05	2.21E-04	1.04E-04	3.71E-02			
82	2.60	0.00E-01	0.	0.	0.	1.14E-01	0.	0.	0.	1.52E-01	3.65E-05	2.26E-04	1.07E-04	2.82E-02			
83	2.50	0.00E-01	0.	0.	0.	1.14E-01	0.	0.	0.	1.53E-01	3.80E-05	2.31E-04	1.10E-04	1.93E-02			
84	2.40	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.54E-01	3.95E-05	2.36E-04	1.13E-04	1.04E-02			
85	2.30	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.55E-01	4.10E-05	2.41E-04	1.16E-04	7.55E-03			
86	2.20	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.56E-01	4.25E-05	2.46E-04	1.19E-04	5.66E-03			
87	2.10	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.57E-01	4.40E-05	2.51E-04	1.22E-04	3.77E-03			
88	2.00	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.58E-01	4.55E-05	2.56E-04	1.25E-04	1.88E-03			
89	1.90	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.59E-01	4.70E-05	2.61E-04	1.28E-04	9.99E-04			
90	1.80	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.60E-01	4.85E-05	2.66E-04	1.31E-04	6.10E-04			
91	1.70	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.61E-01	5.00E-05	2.71E-04	1.34E-04	4.21E-04			
92	1.60	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.62E-01	5.15E-05	2.76E-04	1.37E-04	2.32E-04			
93	1.50	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.63E-01	5.30E-05	2.81E-04	1.40E-04	4.43E-05			
94	1.40	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.64E-01	5.45E-05	2.86E-04	1.43E-04	2.54E-05			
95	1.30	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.65E-01	5.60E-05	2.91E-04	1.46E-04	6.65E-06			
96	1.20	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.66E-01	5.75E-05	2.96E-04	1.49E-04	4.76E-06			
97	1.10	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.67E-01	5.90E-05	3.01E-04	1.52E-04	2.87E-06			
98	1.00	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.68E-01	6.05E-05	3.06E-04	1.55E-04	9.88E-07			
99	0.90	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.69E-01	6.20E-05	3.11E-04	1.58E-04	6.99E-08			
100	0.80	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.70E-01	6.35E-05	3.16E-04	1.61E-04	5.10E-09			
101	0.70	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.71E-01	6.50E-05	3.21E-04	1.64E-04	3.21E-10			
102	0.60	0.	0.	0.	0.	1.14E-01	0.	0.	0.	1.72E-01	6.65E-05	3.26E-04	1.67E-04	1.32E-11			

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY BANDS		TEMPERATURE (DEGREES K)	7900.	NO BETA	NO GAMMA	DENSITY (GM/CC)	1.293E-03	(19.2E-3) NORMAL	NO 2	C- PHOTO-DET (IONS)	F-AGE-FREE W	P.E.	O P.E.	TOTAL AIR
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 10.70 0.	2.08E 00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2 10.50 0.	1.63E 00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3 10.50 0.	1.54E 00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4 10.40 0.	1.52E 00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5 10.30 0.	1.03E 00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6 10.20 0.	0.64E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7 10.10 0.	0.60E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8 10.00 0.	0.46E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9 9.90 0.	0.43E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10 9.80 0.	0.40E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11 9.70 0.	0.34E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12 9.60 0.	1.17E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13 9.50 0.	1.37E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14 9.40 0.	1.46E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15 9.30 0.	1.66E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16 9.20 0.	1.81E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17 9.10 0.	1.95E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18 9.00 0.	2.33E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19 8.90 0.	2.71E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20 8.80 0.	2.87E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21 8.70 0.	2.71E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22 8.60 0.	2.60E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23 8.50 0.	2.52E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24 8.40 0.	2.45E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25 8.30 0.	2.35E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26 8.20 0.	2.22E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27 8.10 0.	2.19E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28 8.00 0.	2.11E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29 7.90 0.	2.01E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30 7.80 0.	1.92E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31 7.70 0.	1.81E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32 7.60 0.	1.70E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33 7.50 0.	1.58E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34 7.40 0.	1.49E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35 7.30 0.	1.41E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36 7.20 0.	1.31E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37 7.10 0.	1.20E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38 7.00 2.10E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39 6.90 3.04E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40 6.80 3.08E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41 6.70 2.08E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42 6.60 1.38E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43 6.50 6.29E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44 6.40 8.93E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45 6.30 1.82E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46 6.20 5.14E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47 6.10 1.93E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48 6.00 4.74E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49 5.90 7.20E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50 5.80 1.03E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51 5.70 1.11E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON Q2 5-R		TEMPERATURE (DEGREES K)		7000.		DENSITY (GM/CC) 1.233E-03 (10.0E-03 NORMAL)		C- FREE-FREE		M		P.F.		TOTAL AIR	
ENERGY BANDS	1ST POS.	2ND POS.	1ST RES.	N2	BETA	NO	GAMMA	NO	VIB-ROT	NO	PHOTO-DET (IONS)	P.E.	0	P.F.	0
52 5.60 1.33E-02 0.	0.	0.	0.	0.	1.29E-02 5.95E-02 0.	0.	0.	0.	0.	0.	3.34E-03 2.20E-07 5.74E-07 9.53E-06 1.29E-01	0.	0.	0.	
53 5.50 1.32E-02 0.	0.	0.	0.	0.	1.82E-02 1.02E-01 0.	0.	0.	0.	0.	0.	3.37E-03 2.42E-07 5.77E-07 9.76E-06 1.34E-01	0.	0.	0.	
54 5.40 1.32E-02 0.	0.	0.	0.	0.	1.29E-02 5.45E-02 0.	0.	0.	0.	0.	0.	3.39E-03 2.56E-07 5.82E-07 9.88E-06 1.44E-01	0.	0.	0.	
55 5.30 1.22E-02 0.	0.	0.	0.	0.	1.33E-02 5.51E-02 0.	0.	0.	0.	0.	0.	3.41E-03 2.71E-07 5.86E-07 1.01E-05 1.24E-01	0.	0.	0.	
56 5.20 7.99E-03 0.	0.	0.	0.	0.	1.34E-02 5.55E-02 0.	0.	0.	0.	0.	0.	3.44E-03 2.87E-07 5.92E-07 1.02E-05 7.61E-02	0.	0.	0.	
57 5.10 7.20E-03 0.	0.	0.	0.	0.	1.24E-02 6.45E-02 0.	0.	0.	0.	0.	0.	3.46E-03 3.04E-07 6.00E-07 1.04E-05 8.75E-02	0.	0.	0.	
58 5.00 5.13E-03 0.	0.	0.	0.	0.	1.08E-02 5.35E-02 0.	0.	0.	0.	0.	0.	3.49E-03 3.23E-07 6.21E-07 1.06E-05 7.38E-02	0.	0.	0.	
59 4.90 4.29E-03 0.	0.	0.	0.	0.	1.10E-02 4.91E-02 0.	0.	0.	0.	0.	0.	3.52E-03 3.43E-07 6.36E-07 1.11E-05 6.65E-02	0.	0.	0.	
60 4.80 4.29E-03 0.	0.	0.	0.	0.	1.15E-02 4.42E-02 0.	0.	0.	0.	0.	0.	3.55E-03 3.65E-07 6.56E-07 1.14E-05 6.37E-02	0.	0.	0.	
61 4.70 4.44E-03 0.	0.	0.	0.	0.	1.04E-02 3.57E-02 0.	0.	0.	0.	0.	0.	3.58E-03 3.88E-07 6.84E-07 1.17E-05 5.71E-02	0.	0.	0.	
62 4.60 5.02E-03 0.	0.	0.	0.	0.	1.01E-02 3.25E-02 0.	0.	0.	0.	0.	0.	3.61E-03 4.14E-07 7.19E-07 1.19E-05 5.15E-02	0.	0.	0.	
63 4.50 4.76E-03 0.	0.	0.	0.	0.	0.28E-03 2.15E-02 0.	0.	0.	0.	0.	0.	3.64E-03 4.43E-07 7.57E-07 1.22E-05 3.70E-02	0.	0.	0.	
64 4.40 4.59E-03 0.	0.	0.	0.	0.	0.28E-03 1.65E-02 0.	0.	0.	0.	0.	0.	3.67E-03 4.74E-07 7.93E-07 1.25E-05 3.33E-02	0.	0.	0.	
65 4.30 3.68E-03 0.	0.	0.	0.	0.	6.76E-03 8.45E-03 0.	0.	0.	0.	0.	0.	3.70E-03 5.07E-07 8.27E-07 1.28E-05 2.34E-02	0.	0.	0.	
66 4.20 3.35E-03 0.	0.	0.	0.	0.	6.81E-03 7.45E-03 0.	0.	0.	0.	0.	0.	3.73E-03 5.42E-07 8.59E-07 1.31E-05 2.42E-02	0.	0.	0.	
67 4.10 2.90E-03 0.	0.	0.	0.	0.	5.95E-03 1.80E-03 0.	0.	0.	0.	0.	0.	3.76E-03 5.80E-07 8.90E-07 1.34E-05 1.51E-02	0.	0.	0.	
68 4.00 2.44E-03 0.	0.	0.	0.	0.	5.31E-03 1.35E-03 0.	0.	0.	0.	0.	0.	3.79E-03 6.21E-07 9.21E-07 1.37E-05 1.68E-02	0.	0.	0.	
69 3.90 1.69E-03 0.	0.	0.	0.	0.	4.24E-03 1.35E-04 0.	0.	0.	0.	0.	0.	3.82E-03 6.65E-07 9.54E-07 1.40E-05 1.23E-02	0.	0.	0.	
70 3.80 1.93E-03 0.	0.	0.	0.	0.	3.45E-03 4.42E-03 0.	0.	0.	0.	0.	0.	3.85E-03 7.12E-07 9.88E-07 1.43E-05 1.77E-02	0.	0.	0.	
71 3.70 1.40E-03 0.	0.	0.	0.	0.	3.15E-03 3.15E-03 0.	0.	0.	0.	0.	0.	3.88E-03 7.62E-07 1.02E-06 1.46E-05 1.17E-02	0.	0.	0.	
72 3.60 1.23E-03 0.	0.	0.	0.	0.	1.31E-03 6.92E-03 0.	0.	0.	0.	0.	0.	3.91E-03 8.14E-07 1.06E-06 1.49E-05 9.45E-03	0.	0.	0.	
73 3.50 1.04E-03 0.	0.	0.	0.	0.	2.45E-03 3.17E-04 0.	0.	0.	0.	0.	0.	3.94E-03 8.68E-07 1.10E-06 1.52E-05 9.14E-03	0.	0.	0.	
74 3.40 8.59E-04 0.	0.	0.	0.	0.	2.45E-03 2.45E-03 0.	0.	0.	0.	0.	0.	3.97E-03 9.24E-07 1.14E-06 1.55E-05 8.43E-03	0.	0.	0.	
75 3.30 6.27E-04 0.	0.	0.	0.	0.	1.35E-03 1.35E-03 0.	0.	0.	0.	0.	0.	4.00E-03 9.82E-07 1.18E-06 1.58E-05 5.33E-03	0.	0.	0.	
76 3.20 4.62E-04 0.	0.	0.	0.	0.	5.27E-04 3.07E-04 1.65E-03 0.	0.	0.	0.	0.	0.	4.03E-03 1.04E-06 1.22E-06 1.61E-05 5.85E-03	0.	0.	0.	
77 3.10 4.17E-04 0.	0.	0.	0.	0.	4.24E-04 1.04E-05 1.35E-03 0.	0.	0.	0.	0.	0.	4.06E-03 1.12E-06 1.26E-06 1.64E-05 4.65E-03	0.	0.	0.	
78 3.00 3.32E-04 0.	0.	0.	0.	0.	2.00E-04 1.02E-04 1.15E-03 0.	0.	0.	0.	0.	0.	4.09E-03 1.20E-06 1.30E-06 1.67E-05 3.61E-03	0.	0.	0.	
79 2.90 2.49E-04 0.	0.	0.	0.	0.	1.23E-04 8.42E-05 7.03E-04 0.	0.	0.	0.	0.	0.	4.12E-03 1.28E-06 1.34E-06 1.70E-05 2.53E-03	0.	0.	0.	
80 2.80 2.33E-04 0.	0.	0.	0.	0.	3.48E-05 1.77E-05 3.75E-04 0.	0.	0.	0.	0.	0.	4.15E-03 1.36E-06 1.38E-06 1.73E-05 2.43E-03	0.	0.	0.	
81 2.70 1.25E-04 0.	0.	0.	0.	0.	2.40E-05 5.04E-05 1.65E-04 0.	0.	0.	0.	0.	0.	4.18E-03 1.45E-06 1.42E-06 1.76E-05 2.91E-04	0.	0.	0.	
82 2.60 6.45E-05 0.	0.	0.	0.	0.	1.77E-05 5.05E-06 1.30E-05 0.	0.	0.	0.	0.	0.	4.21E-03 1.54E-06 1.46E-06 1.79E-05 1.97E-03	0.	0.	0.	
83 2.50 2.95E-06 0.	0.	0.	0.	0.	1.89E-06 2.74E-06 1.15E-06 0.	0.	0.	0.	0.	0.	4.24E-03 1.63E-06 1.50E-06 1.82E-05 1.87E-03	0.	0.	0.	
84 2.40 0.	0.	0.	0.	0.	4.02E-06 1.10E-06 0.	0.	0.	0.	0.	0.	4.27E-03 1.72E-06 1.54E-06 1.85E-05 1.99E-03	0.	0.	0.	
85 2.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.30E-03 1.81E-06 1.58E-06 1.88E-05 2.60E-03	0.	0.	0.
86 2.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.33E-03 1.90E-06 1.62E-06 1.91E-05 3.54E-03	0.	0.	0.
87 2.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.36E-03 2.00E-06 1.66E-06 1.94E-05 4.64E-03	0.	0.	0.
88 2.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.39E-03 2.10E-06 1.70E-06 1.97E-05 5.64E-03	0.	0.	0.
89 1.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.42E-03 2.20E-06 1.74E-06 2.00E-05 1.22E-02	0.	0.	0.
90 1.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.45E-03 2.30E-06 1.78E-06 2.03E-05 1.05E-02	0.	0.	0.
91 1.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.48E-03 2.40E-06 1.82E-06 2.06E-05 1.21E-02	0.	0.	0.
92 1.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.51E-03 2.50E-06 1.86E-06 2.09E-05 8.50E-03	0.	0.	0.
93 1.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.54E-03 2.60E-06 1.90E-06 2.12E-05 9.63E-03	0.	0.	0.
94 1.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.57E-03 2.70E-06 1.94E-06 2.15E-05 1.05E-02	0.	0.	0.
95 1.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.60E-03 2.80E-06 1.98E-06 2.18E-05 7.13E-03	0.	0.	0.
96 1.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.63E-03 2.90E-06 2.02E-06 2.21E-05 7.09E-03	0.	0.	0.
97 1.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.66E-03 3.00E-06 2.06E-06 2.24E-05 5.72E-03	0.	0.	0.
98 1.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.69E-03 3.10E-06 2.10E-06 2.27E-05 4.30E-03	0.	0.	0.
99 0.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.72E-03 3.20E-06 2.14E-06 2.30E-05 2.12E-03	0.	0.	0.
100 0.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.75E-03 3.30E-06 2.18E-06 2.33E-05 2.43E-04	0.	0.	0.
101 0.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.78E-03 3.40E-06 2.22E-06 2.36E-05 7.43E-04	0.	0.	0.
102 0.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.81E-03 3.50E-06 2.26E-06 2.39E-05 4.98E-04	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

[illegible]

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY BANDS E.V.	O2 S-R CONT.	O2 5-R CONT.	N2 B-H NO. 1	TEMPERATURE (DEGREES K)	NO BETA	NO GAMMA	2 PHOTO-DET (IONS)	O- FREE-FREE P.E.	N P.E.	O TOTAL AIR P.E.	
1 10.70 0.	0.	0.	7.97E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
2 10.60 0.	0.	0.	6.48E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
3 12.50 0.	0.	0.	4.11E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
4 10.40 0.	0.	0.	5.24E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
5 10.30 0.	0.	0.	4.08E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
6 10.20 0.	0.	0.	3.91E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
7 10.10 0.	0.	0.	3.42E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
8 10.00 0.	0.	0.	2.97E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
9 9.90 0.	0.	0.	2.57E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
10 9.80 0.	0.	0.	2.16E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
11 9.70 0.	0.	0.	1.61E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
12 9.60 0.	0.	0.	1.72E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
13 9.50 0.	0.	0.	1.26E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
14 9.40 0.	0.	0.	1.54E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
15 9.30 0.	0.	0.	1.76E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
16 9.20 0.	0.	0.	1.93E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
17 9.10 0.	0.	0.	2.14E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
18 9.00 0.	0.	0.	2.34E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
19 8.90 0.	0.	0.	2.54E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
20 8.80 0.	0.	0.	2.75E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
21 8.70 0.	0.	0.	2.96E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
22 8.60 0.	0.	0.	3.13E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
23 8.50 0.	0.	0.	3.03E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
24 8.40 0.	0.	0.	2.94E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
25 8.30 0.	0.	0.	2.83E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
26 8.20 0.	0.	0.	2.73E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
27 8.10 0.	0.	0.	2.63E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
28 8.00 0.	0.	0.	2.54E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
29 7.90 0.	0.	0.	2.47E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
30 7.80 0.	0.	0.	2.31E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
31 7.70 0.	0.	0.	2.16E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
32 7.60 0.	0.	0.	2.04E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
33 7.50 0.	0.	0.	1.91E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
34 7.40 0.	0.	0.	1.79E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
35 7.30 0.	0.	0.	1.69E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
36 7.20 0.	0.	0.	1.57E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
37 7.10 0.	0.	0.	1.45E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
38 7.00 0.	0.	0.	1.30E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
39 6.90 0.	0.	0.	1.18E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
40 6.80 0.	0.	0.	1.08E-03	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
41 6.70 0.	0.	0.	9.95E-04	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
42 6.60 0.	0.	0.	9.12E-04	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
43 6.50 0.	0.	0.	8.30E-04	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
44 6.40 0.	0.	0.	7.53E-04	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
45 6.30 0.	0.	0.	6.82E-04	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
46 6.20 0.	0.	0.	6.16E-04	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
47 6.10 0.	0.	0.	5.55E-04	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
48 6.00 0.	0.	0.	4.97E-04	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
49 5.90 0.	0.	0.	4.42E-04	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
50 5.80 0.	0.	0.	3.90E-04	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03
51 5.70 0.	0.	0.	3.41E-04	0.	0.	0.	1.20E-04	4.42E-11	1.50E-07	6.59E-08	7.69E-03

TEMPERATURE (DEGREES K) 7000. DENSITY (GM/CC) 1.293E-07 (10.0E-05 NORMAL)

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REFLECTS N) 7000. DENSITY (GM/CC) 1.293E-5 (10. DE-67 NORMAL)

PHOTON	Q2 S-R	COUNT	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9	NO. 10	NO. 11	NO. 12	NO. 13	NO. 14	NO. 15	NO. 16	NO. 17	NO. 18	NO. 19	NO. 20	NO. 21	NO. 22	NO. 23	NO. 24	NO. 25	NO. 26	NO. 27	NO. 28	NO. 29	NO. 30	NO. 31	NO. 32	NO. 33	NO. 34	NO. 35	NO. 36	NO. 37	NO. 38	NO. 39	NO. 40	NO. 41	NO. 42	NO. 43	NO. 44	NO. 45	NO. 46	NO. 47	NO. 48	NO. 49	NO. 50	NO. 51	NO. 52	NO. 53	NO. 54	NO. 55	NO. 56	NO. 57	NO. 58	NO. 59	NO. 60	NO. 61	NO. 62	NO. 63	NO. 64	NO. 65	NO. 66	NO. 67	NO. 68	NO. 69	NO. 70	NO. 71	NO. 72	NO. 73	NO. 74	NO. 75	NO. 76	NO. 77	NO. 78	NO. 79	NO. 80	NO. 81	NO. 82	NO. 83	NO. 84	NO. 85	NO. 86	NO. 87	NO. 88	NO. 89	NO. 90	NO. 91	NO. 92	NO. 93	NO. 94	NO. 95	NO. 96	NO. 97	NO. 98	NO. 99	NO. 100	NO. 101	NO. 102	NO. 103	NO. 104	NO. 105	NO. 106	NO. 107	NO. 108	NO. 109	NO. 110	NO. 111	NO. 112	NO. 113	NO. 114	NO. 115	NO. 116	NO. 117	NO. 118	NO. 119	NO. 120	NO. 121	NO. 122	NO. 123	NO. 124	NO. 125	NO. 126	NO. 127	NO. 128	NO. 129	NO. 130	NO. 131	NO. 132	NO. 133	NO. 134	NO. 135	NO. 136	NO. 137	NO. 138	NO. 139	NO. 140	NO. 141	NO. 142	NO. 143	NO. 144	NO. 145	NO. 146	NO. 147	NO. 148	NO. 149	NO. 150	NO. 151	NO. 152	NO. 153	NO. 154	NO. 155	NO. 156	NO. 157	NO. 158	NO. 159	NO. 160	NO. 161	NO. 162	NO. 163	NO. 164	NO. 165	NO. 166	NO. 167	NO. 168	NO. 169	NO. 170	NO. 171	NO. 172	NO. 173	NO. 174	NO. 175	NO. 176	NO. 177	NO. 178	NO. 179	NO. 180	NO. 181	NO. 182	NO. 183	NO. 184	NO. 185	NO. 186	NO. 187	NO. 188	NO. 189	NO. 190	NO. 191	NO. 192	NO. 193	NO. 194	NO. 195	NO. 196	NO. 197	NO. 198	NO. 199	NO. 200	NO. 201	NO. 202	NO. 203	NO. 204	NO. 205	NO. 206	NO. 207	NO. 208	NO. 209	NO. 210	NO. 211	NO. 212	NO. 213	NO. 214	NO. 215	NO. 216	NO. 217	NO. 218	NO. 219	NO. 220	NO. 221	NO. 222	NO. 223	NO. 224	NO. 225	NO. 226	NO. 227	NO. 228	NO. 229	NO. 230	NO. 231	NO. 232	NO. 233	NO. 234	NO. 235	NO. 236	NO. 237	NO. 238	NO. 239	NO. 240	NO. 241	NO. 242	NO. 243	NO. 244	NO. 245	NO. 246	NO. 247	NO. 248	NO. 249	NO. 250	NO. 251	NO. 252	NO. 253	NO. 254	NO. 255	NO. 256	NO. 257	NO. 258	NO. 259	NO. 260	NO. 261	NO. 262	NO. 263	NO. 264	NO. 265	NO. 266	NO. 267	NO. 268	NO. 269	NO. 270	NO. 271	NO. 272	NO. 273	NO. 274	NO. 275	NO. 276	NO. 277	NO. 278	NO. 279	NO. 280	NO. 281	NO. 282	NO. 283	NO. 284	NO. 285	NO. 286	NO. 287	NO. 288	NO. 289	NO. 290	NO. 291	NO. 292	NO. 293	NO. 294	NO. 295	NO. 296	NO. 297	NO. 298	NO. 299	NO. 300	NO. 301	NO. 302	NO. 303	NO. 304	NO. 305	NO. 306	NO. 307	NO. 308	NO. 309	NO. 310	NO. 311	NO. 312	NO. 313	NO. 314	NO. 315	NO. 316	NO. 317	NO. 318	NO. 319	NO. 320	NO. 321	NO. 322	NO. 323	NO. 324	NO. 325	NO. 326	NO. 327	NO. 328	NO. 329	NO. 330	NO. 331	NO. 332	NO. 333	NO. 334	NO. 335	NO. 336	NO. 337	NO. 338	NO. 339	NO. 340	NO. 341	NO. 342	NO. 343	NO. 344	NO. 345	NO. 346	NO. 347	NO. 348
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ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (°C/REES K)		7000.		DENSITY (GM/CC)		1.293E-09 (16.0E-07 NORMAL)		TOTAL AIR	
N2 1ST POS.	N2 2ND POS.	N2 1ST POS.	N2 2ND POS.	N2 1ST POS.	N2 2ND POS.	N2 1ST POS.	N2 2ND POS.	N2 1ST POS.	N2 2ND POS.
52	5.40	1.43E-14	0.	1.27E-13	9.43E-13	0.	1.04E-12	1.97E-14	5.23E-12
53	5.50	1.42E-14	0.	1.46E-13	9.77E-13	0.	1.04E-12	2.09E-14	5.26E-12
54	5.40	1.42E-14	0.	1.27E-13	9.43E-13	0.	1.04E-12	2.20E-14	5.34E-12
55	5.30	1.31E-14	0.	1.26E-13	9.81E-13	0.	1.04E-12	2.32E-14	5.34E-12
56	5.20	8.62E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	2.46E-14	5.34E-12
57	5.10	7.77E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	2.61E-14	5.34E-12
58	5.00	5.53E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	2.77E-14	5.34E-12
59	4.90	4.50E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	2.94E-14	5.34E-12
60	4.80	4.63E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	3.10E-14	5.34E-12
61	4.70	4.79E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	3.26E-14	5.34E-12
62	4.60	5.42E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	3.42E-14	5.34E-12
63	4.50	5.14E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	3.58E-14	5.34E-12
64	4.40	4.92E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	3.74E-14	5.34E-12
65	4.30	4.10E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	3.90E-14	5.34E-12
66	4.20	3.13E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	4.06E-14	5.34E-12
67	4.10	3.13E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	4.22E-14	5.34E-12
68	4.00	2.63E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	4.38E-14	5.34E-12
69	3.90	2.00E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	4.54E-14	5.34E-12
70	3.80	2.00E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	4.70E-14	5.34E-12
71	3.70	1.59E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	4.86E-14	5.34E-12
72	3.60	1.32E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	5.02E-14	5.34E-12
73	3.50	1.12E-15	0.	1.27E-13	9.43E-13	0.	1.04E-12	5.18E-14	5.34E-12
74	3.40	9.03E-16	0.	1.27E-13	9.43E-13	0.	1.04E-12	5.34E-14	5.34E-12
75	3.30	6.77E-16	0.	1.27E-13	9.43E-13	0.	1.04E-12	5.50E-14	5.34E-12
76	3.20	5.23E-16	0.	1.27E-13	9.43E-13	0.	1.04E-12	5.66E-14	5.34E-12
77	3.10	4.51E-16	0.	1.27E-13	9.43E-13	0.	1.04E-12	5.82E-14	5.34E-12
78	3.00	3.50E-16	0.	1.27E-13	9.43E-13	0.	1.04E-12	5.98E-14	5.34E-12
79	2.90	2.62E-16	0.	1.27E-13	9.43E-13	0.	1.04E-12	6.14E-14	5.34E-12
80	2.80	2.52E-16	0.	1.27E-13	9.43E-13	0.	1.04E-12	6.30E-14	5.34E-12
81	2.70	1.59E-16	0.	1.27E-13	9.43E-13	0.	1.04E-12	6.46E-14	5.34E-12
82	2.60	5.01E-17	0.	1.27E-13	9.43E-13	0.	1.04E-12	6.62E-14	5.34E-12
83	2.50	3.10E-18	0.	1.27E-13	9.43E-13	0.	1.04E-12	6.78E-14	5.34E-12
84	2.40	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	6.94E-14	5.34E-12
85	2.30	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	7.10E-14	5.34E-12
86	2.20	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	7.26E-14	5.34E-12
87	2.10	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	7.42E-14	5.34E-12
88	2.00	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	7.58E-14	5.34E-12
89	1.90	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	7.74E-14	5.34E-12
90	1.80	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	7.90E-14	5.34E-12
91	1.70	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	8.06E-14	5.34E-12
92	1.60	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	8.22E-14	5.34E-12
93	1.50	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	8.38E-14	5.34E-12
94	1.40	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	8.54E-14	5.34E-12
95	1.30	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	8.70E-14	5.34E-12
96	1.20	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	8.86E-14	5.34E-12
97	1.10	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	9.02E-14	5.34E-12
98	1.00	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	9.18E-14	5.34E-12
99	0.90	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	9.34E-14	5.34E-12
100	0.80	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	9.50E-14	5.34E-12
101	0.70	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	9.66E-14	5.34E-12
102	0.60	0.	0.	1.27E-13	9.43E-13	0.	1.04E-12	9.82E-14	5.34E-12

ABSORPTION COEFFICIENTS OF HEATED AIR (IMPERIAL CH.)

TEMPERATURE (DEGREES K)												0000.		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO		NO	
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ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 8000. DENSITY (GM/CC) 1.293E-02 (1.0E 01 NORMAL)													
PHOTON 02 S-R ENERGY BANDS		M2 1ST POS.	M2 2ND POS.	M2 3RD POS.	NO DATA	NO GAMMA	NO VIB-ROT	NO 2	O- PHOTO-DET (IONS)	FREE-FREE P.E.	H P.E.	D TOTAL P.E.	
52	5.60	3.64E-01	0	0	0	0	0	0	2.19E-01	3.08E-05	5.00E-05	5.00E-04	2.49E 00
53	5.50	3.78E-01	0	0	0	0	0	0	2.21E-01	3.08E-05	5.05E-05	6.08E-04	2.75E 00
54	5.40	3.72E-01	0	0	0	0	0	0	2.22E-01	4.18E-05	5.10E-05	6.10E-04	1.95E 00
55	5.30	3.54E-01	0	0	0	0	0	0	2.23E-01	4.34E-05	5.16E-05	6.31E-04	2.49E 00
56	5.20	2.48E-01	0	0	0	0	0	0	2.25E-01	4.50E-05	5.22E-05	6.47E-04	1.65E 00
57	5.10	2.19E-01	0	0	0	0	0	0	2.28E-01	4.67E-05	5.35E-05	6.53E-04	1.98E 00
58	5.00	1.50E-01	0	0	0	0	0	0	2.30E-01	5.17E-05	5.49E-05	6.76E-04	1.65E 00
59	4.90	1.31E-01	0	0	0	0	0	0	2.38E-01	5.49E-05	5.43E-05	6.94E-04	1.55E 00
60	4.80	1.32E-01	0	0	0	0	0	0	2.32E-01	5.49E-05	5.43E-05	6.94E-04	1.55E 00
61	4.70	1.39E-01	0	0	0	0	0	0	2.34E-01	6.22E-05	5.60E-05	7.27E-04	1.35E 00
62	4.60	1.40E-01	0	0	0	0	0	0	2.36E-01	6.44E-05	5.64E-05	7.45E-04	1.35E 00
63	4.50	1.55E-01	0	0	0	0	0	0	2.38E-01	7.09E-05	6.25E-05	7.43E-04	1.07E 00
64	4.40	1.55E-01	0	0	0	0	0	0	2.40E-01	7.09E-05	6.44E-05	7.80E-04	9.54E -01
65	4.30	1.32E-01	0	0	0	0	0	0	2.42E-01	7.14E-05	6.53E-05	7.98E-04	7.54E -01
66	4.20	1.16E-01	0	0	0	0	0	0	2.44E-01	8.74E-05	6.53E-05	8.16E-04	8.81E -01
67	4.10	1.02E-01	0	0	0	0	0	0	2.45E-01	9.39E-05	7.02E-05	8.33E-04	5.82E -01
68	4.00	0.74E-02	0	0	0	0	0	0	2.46E-01	1.01E-04	7.22E-05	8.17E-05	6.44E -01
69	3.90	0.79E-02	0	0	0	0	0	0	2.45E-01	1.09E-04	5.21E-05	8.40E-05	5.46E -01
70	3.80	7.14E-02	0	0	0	0	0	0	2.44E-01	1.18E-04	5.33E-05	8.55E-05	5.20E -01
71	3.70	5.55E-02	0	0	0	0	0	0	2.43E-01	1.20E-04	4.42E-05	9.80E-05	5.14E -01
72	3.60	4.77E-02	0	0	0	0	0	0	2.42E-01	1.39E-04	4.44E-05	1.13E-04	4.23E -01
73	3.50	4.12E-02	0	0	0	0	0	0	2.40E-01	1.51E-04	4.39E-05	1.27E-04	4.16E -01
74	3.40	3.42E-02	0	0	0	0	0	0	2.38E-01	1.63E-04	4.33E-05	1.43E-04	2.44E -01
75	3.30	2.80E-02	0	0	0	0	0	0	2.36E-01	1.61E-04	5.06E-05	1.59E-04	2.45E -01
76	3.20	2.00E-02	0	0	0	0	0	0	2.34E-01	1.19E-04	5.68E-05	1.75E-04	2.21E -01
77	3.10	1.51E-02	0	0	0	0	0	0	2.32E-01	1.19E-04	6.15E-05	1.91E-04	1.99E -01
78	3.00	1.48E-02	0	0	0	0	0	0	2.30E-01	2.10E-04	6.70E-05	2.00E-04	1.83E -01
79	2.90	1.32E-02	0	0	0	0	0	0	2.28E-01	2.67E-04	7.25E-05	2.80E-04	1.83E -01
80	2.80	1.09E-02	0	0	0	0	0	0	2.26E-01	2.96E-04	7.44E-05	2.41E-04	1.48E -01
81	2.70	0.84E-03	0	0	0	0	0	0	2.24E-01	3.31E-04	8.46E-05	2.59E-04	1.30E -01
82	2.60	2.36E-03	0	0	0	0	0	0	2.22E-01	3.71E-04	9.12E-05	2.78E-04	1.27E -01
83	2.50	1.33E-04	0	0	0	0	0	0	2.20E-01	4.72E-04	1.01E-04	8.11E-05	1.22E -01
84	2.40	0	0	0	0	0	0	0	2.18E-01	4.72E-04	1.15E-04	9.97E-05	1.25E -01
85	2.30	0	0	0	0	0	0	0	2.16E-01	5.30E-04	6.24E-05	1.19E-04	1.57E -01
86	2.20	0	0	0	0	0	0	0	2.14E-01	6.14E-04	7.39E-05	1.44E-04	1.94E -01
87	2.10	0	0	0	0	0	0	0	2.12E-01	7.07E-04	8.80E-05	1.68E-04	2.21E -01
88	2.00	0	0	0	0	0	0	0	2.10E-01	8.19E-04	9.81E-05	1.93E-04	2.67E -01
89	1.90	0	0	0	0	0	0	0	2.08E-01	9.57E-04	1.11E-04	2.18E-04	4.32E -01
90	1.80	0	0	0	0	0	0	0	2.06E-01	1.13E-03	1.29E-04	2.37E-04	3.94E -01
91	1.70	0	0	0	0	0	0	0	2.04E-01	1.34E-03	1.52E-04	3.05E-04	4.50E -01
92	1.60	0	0	0	0	0	0	0	2.02E-01	1.61E-03	1.74E-04	3.53E-04	3.27E -01
93	1.50	0	0	0	0	0	0	0	2.00E-01	1.95E-03	2.13E-04	4.18E-04	3.41E -01
94	1.40	0	0	0	0	0	0	0	2.01E-01	2.94E-04	5.47E-04	4.71E-04	3.94E -01
95	1.30	0	0	0	0	0	0	0	2.02E-01	2.90E-04	5.95E-04	2.39E-04	2.55E -01
96	1.20	0	0	0	0	0	0	0	2.03E-01	3.13E-04	6.31E-04	1.08E-04	2.55E -01
97	1.10	0	0	0	0	0	0	0	2.04E-01	3.79E-04	6.74E-04	1.69E-04	1.98E -01
98	1.00	0	0	0	0	0	0	0	2.05E-01	4.18E-04	7.44E-04	1.54E-04	1.69E -01
99	0.90	0	0	0	0	0	0	0	2.06E-01	4.79E-04	9.12E-04	8.33E-04	1.54E -01
100	0.80	0	0	0	0	0	0	0	2.07E-01	5.44E-04	1.02E-03	4.15E-03	4.15E -02
101	0.70	0	0	0	0	0	0	0	2.08E-01	5.94E-04	1.14E-03	4.15E-03	4.15E -02
102	0.60	0	0	0	0	0	0	0	2.09E-01	5.94E-04	1.14E-03	4.15E-03	4.15E -02

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.233E-03 (10.0E-01 NORMAL)		0.000		NO		0-		FREE-FREE		M		P.F.		TOTAL AIR	
PHOTON ENERGY BANDS E.V.		NO. 1		NO. 2		BETA		AD		PHOTO-DET (1000)		P.E.		P.F.		P.F.		P.F.	
PHOTON ENERGY BANDS E.V.		NO. 1		NO. 2		BETA		AD		PHOTO-DET (1000)		P.E.		P.F.		P.F.		P.F.	
1 10.70 0.	2.32E 00	0.	0.	0.	0.	0.	0.	0.	0.	5.00E-03	2.01E-07	5.01E-05	4.90E-05	4.90E-05	2.32E 00	0.	0.	0.	0.
2 10.70 0.	1.92E 00	0.	0.	0.	0.	0.	0.	0.	0.	5.00E-03	2.07E-07	5.04E-05	4.90E-05	4.90E-05	1.92E 00	0.	0.	0.	0.
3 10.70 0.	1.62E 00	0.	0.	0.	0.	0.	0.	0.	0.	5.01E-03	2.13E-07	5.07E-05	4.90E-05	4.90E-05	1.62E 00	0.	0.	0.	0.
4 10.70 0.	1.42E 00	0.	0.	0.	0.	0.	0.	0.	0.	5.02E-03	2.19E-07	5.10E-05	4.91E-05	4.91E-05	1.42E 00	0.	0.	0.	0.
5 10.70 0.	1.29E 00	0.	0.	0.	0.	0.	0.	0.	0.	5.03E-03	2.25E-07	5.13E-05	4.91E-05	4.91E-05	1.29E 00	0.	0.	0.	0.
6 10.70 0.	1.25E 00	0.	0.	0.	0.	0.	0.	0.	0.	5.04E-03	2.32E-07	5.17E-05	4.91E-05	4.91E-05	1.25E 00	0.	0.	0.	0.
7 10.70 0.	1.11E 00	0.	0.	0.	0.	0.	0.	0.	0.	5.04E-03	2.39E-07	5.20E-05	4.91E-05	4.91E-05	1.11E 00	0.	0.	0.	0.
8 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.05E-03	2.46E-07	5.24E-05	4.92E-05	4.92E-05	0.68E-01	0.	0.	0.	0.
9 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.06E-03	2.54E-07	5.28E-05	4.92E-05	4.92E-05	0.68E-01	0.	0.	0.	0.
10 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.07E-03	2.62E-07	5.32E-05	4.93E-05	4.93E-05	0.68E-01	0.	0.	0.	0.
11 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.08E-03	2.70E-07	5.36E-05	4.93E-05	4.93E-05	0.68E-01	0.	0.	0.	0.
12 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.09E-03	2.78E-07	5.40E-05	4.94E-05	4.94E-05	0.68E-01	0.	0.	0.	0.
13 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.10E-03	2.86E-07	5.44E-05	4.94E-05	4.94E-05	0.68E-01	0.	0.	0.	0.
14 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.11E-03	2.94E-07	5.48E-05	4.94E-05	4.94E-05	0.68E-01	0.	0.	0.	0.
15 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.12E-03	3.02E-07	5.52E-05	4.95E-05	4.95E-05	0.68E-01	0.	0.	0.	0.
16 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.13E-03	3.10E-07	5.56E-05	4.95E-05	4.95E-05	0.68E-01	0.	0.	0.	0.
17 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.14E-03	3.17E-07	5.60E-05	4.96E-05	4.96E-05	0.68E-01	0.	0.	0.	0.
18 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.15E-03	3.25E-07	5.64E-05	4.96E-05	4.96E-05	0.68E-01	0.	0.	0.	0.
19 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.16E-03	3.33E-07	5.68E-05	4.97E-05	4.97E-05	0.68E-01	0.	0.	0.	0.
20 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.17E-03	3.41E-07	5.72E-05	4.97E-05	4.97E-05	0.68E-01	0.	0.	0.	0.
21 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.18E-03	3.49E-07	5.76E-05	4.98E-05	4.98E-05	0.68E-01	0.	0.	0.	0.
22 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.19E-03	3.57E-07	5.80E-05	4.98E-05	4.98E-05	0.68E-01	0.	0.	0.	0.
23 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.20E-03	3.65E-07	5.84E-05	4.99E-05	4.99E-05	0.68E-01	0.	0.	0.	0.
24 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.21E-03	3.73E-07	5.88E-05	4.99E-05	4.99E-05	0.68E-01	0.	0.	0.	0.
25 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.22E-03	3.81E-07	5.92E-05	5.00E-05	5.00E-05	0.68E-01	0.	0.	0.	0.
26 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.23E-03	3.89E-07	5.96E-05	5.00E-05	5.00E-05	0.68E-01	0.	0.	0.	0.
27 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.24E-03	3.97E-07	6.00E-05	5.01E-05	5.01E-05	0.68E-01	0.	0.	0.	0.
28 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.25E-03	4.05E-07	6.04E-05	5.01E-05	5.01E-05	0.68E-01	0.	0.	0.	0.
29 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.26E-03	4.13E-07	6.08E-05	5.02E-05	5.02E-05	0.68E-01	0.	0.	0.	0.
30 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.27E-03	4.21E-07	6.12E-05	5.02E-05	5.02E-05	0.68E-01	0.	0.	0.	0.
31 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.28E-03	4.29E-07	6.16E-05	5.03E-05	5.03E-05	0.68E-01	0.	0.	0.	0.
32 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.29E-03	4.37E-07	6.20E-05	5.03E-05	5.03E-05	0.68E-01	0.	0.	0.	0.
33 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.30E-03	4.45E-07	6.24E-05	5.04E-05	5.04E-05	0.68E-01	0.	0.	0.	0.
34 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.31E-03	4.53E-07	6.28E-05	5.04E-05	5.04E-05	0.68E-01	0.	0.	0.	0.
35 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.32E-03	4.61E-07	6.32E-05	5.05E-05	5.05E-05	0.68E-01	0.	0.	0.	0.
36 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.33E-03	4.69E-07	6.36E-05	5.05E-05	5.05E-05	0.68E-01	0.	0.	0.	0.
37 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.34E-03	4.77E-07	6.40E-05	5.06E-05	5.06E-05	0.68E-01	0.	0.	0.	0.
38 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.35E-03	4.85E-07	6.44E-05	5.06E-05	5.06E-05	0.68E-01	0.	0.	0.	0.
39 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.36E-03	4.93E-07	6.48E-05	5.07E-05	5.07E-05	0.68E-01	0.	0.	0.	0.
40 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.37E-03	5.01E-07	6.52E-05	5.07E-05	5.07E-05	0.68E-01	0.	0.	0.	0.
41 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.38E-03	5.09E-07	6.56E-05	5.08E-05	5.08E-05	0.68E-01	0.	0.	0.	0.
42 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.39E-03	5.17E-07	6.60E-05	5.08E-05	5.08E-05	0.68E-01	0.	0.	0.	0.
43 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.40E-03	5.25E-07	6.64E-05	5.09E-05	5.09E-05	0.68E-01	0.	0.	0.	0.
44 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.41E-03	5.33E-07	6.68E-05	5.09E-05	5.09E-05	0.68E-01	0.	0.	0.	0.
45 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.42E-03	5.41E-07	6.72E-05	5.10E-05	5.10E-05	0.68E-01	0.	0.	0.	0.
46 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.43E-03	5.49E-07	6.76E-05	5.10E-05	5.10E-05	0.68E-01	0.	0.	0.	0.
47 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.44E-03	5.57E-07	6.80E-05	5.11E-05	5.11E-05	0.68E-01	0.	0.	0.	0.
48 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.45E-03	5.65E-07	6.84E-05	5.11E-05	5.11E-05	0.68E-01	0.	0.	0.	0.
49 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.46E-03	5.73E-07	6.88E-05	5.12E-05	5.12E-05	0.68E-01	0.	0.	0.	0.
50 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.47E-03	5.81E-07	6.92E-05	5.12E-05	5.12E-05	0.68E-01	0.	0.	0.	0.
51 10.70 0.	0.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	5.48E-03	5.89E-07	6.96E-05	5.13E-05	5.13E-05	0.68E-01	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R ENERGY BANDS	1ST POS.	2ND POS.	3RD POS.	TEMPERATURE (DEGREES K)	8000.	DENSITY (GM/CC)	1.293E-03	(10.0E-01 NORMAL)	0	FREE-FREE PHOTO-DET (IONS)	N	0	TOTAL AIR P.E.
52	5.60	3.00E-03	0.	0.	0.	0.54E-03	6.24E-02	0.	5.33E-03	1.41E-04	1.45E-05	6.99E-05	0.15E-02
53	5.50	3.00E-03	0.	0.	0.	1.06E-02	4.24E-02	0.	5.33E-03	1.41E-04	1.45E-05	7.11E-05	0.34E-02
54	5.40	3.15E-03	0.	0.	0.	0.60E-03	3.70E-02	0.	5.33E-03	1.41E-04	1.45E-05	7.23E-05	5.62E-02
55	5.30	3.00E-03	0.	0.	0.	0.95E-03	3.92E-02	0.	5.33E-03	1.41E-04	1.45E-05	7.30E-05	7.85E-02
56	5.20	3.20E-03	0.	0.	0.	0.13E-03	3.08E-02	0.	5.33E-03	1.41E-04	1.45E-05	7.56E-05	4.60E-02
57	5.10	2.90E-03	0.	0.	0.	0.71E-03	4.31E-02	0.	5.33E-03	1.41E-04	1.45E-05	7.74E-05	6.04E-02
58	5.00	2.10E-03	0.	0.	0.	7.40E-03	3.05E-02	0.	5.33E-03	1.41E-04	1.45E-05	7.93E-05	5.18E-02
59	4.90	1.70E-03	0.	0.	0.	7.67E-03	3.45E-02	0.	5.33E-03	1.41E-04	1.45E-05	8.11E-05	4.98E-02
60	4.80	1.0E-03	0.	0.	0.	4.20E-03	3.14E-02	0.	5.33E-03	1.41E-04	1.45E-05	8.29E-05	4.74E-02
61	4.70	1.90E-03	0.	0.	0.	7.62E-03	2.53E-02	0.	5.33E-03	1.41E-04	1.45E-05	8.50E-05	4.07E-02
62	4.60	2.10E-03	0.	0.	0.	7.40E-03	2.41E-02	0.	5.33E-03	1.41E-04	1.45E-05	8.70E-05	3.96E-02
63	4.50	2.12E-03	0.	2.47E-04	0.	6.20E-03	1.63E-02	0.	5.33E-03	1.41E-04	1.45E-05	8.91E-05	3.49E-02
64	4.40	2.07E-03	0.	0.68E-04	0.	6.05E-03	1.24E-02	0.	5.33E-03	1.41E-04	1.45E-05	9.12E-05	2.76E-02
65	4.30	1.80E-03	0.	2.00E-03	0.	5.30E-03	6.64E-03	0.	5.33E-03	1.41E-04	1.45E-05	9.33E-05	2.10E-02
66	4.20	1.50E-03	0.	9.60E-03	0.	5.10E-03	5.59E-03	0.	5.33E-03	1.41E-04	1.45E-05	9.53E-05	2.42E-02
67	4.10	1.30E-03	0.	2.95E-03	0.	4.84E-03	1.40E-03	0.	5.33E-03	1.41E-04	1.45E-05	9.73E-05	1.62E-02
68	4.00	1.10E-03	0.	1.38E-02	0.	4.59E-03	1.04E-03	0.	5.33E-03	1.41E-04	1.45E-05	9.93E-05	1.57E-02
69	3.90	9.20E-04	0.	5.94E-03	6.58E-05	3.61E-03	4.86E-04	0.	5.33E-03	1.41E-04	1.45E-05	1.01E-05	1.70E-02
70	3.80	7.70E-04	0.	7.61E-03	5.96E-04	3.76E-03	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.03E-05	1.49E-02
71	3.70	7.1E-04	0.	1.13E-02	1.13E-04	2.76E-03	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.05E-05	2.00E-02
72	3.60	6.51E-04	0.	4.93E-03	7.30E-04	3.02E-03	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.07E-05	1.40E-02
73	3.50	5.95E-04	0.	8.44E-03	2.81E-03	2.05E-03	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.09E-05	1.89E-02
74	3.40	4.67E-04	0.	3.62E-03	1.45E-04	2.66E-03	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.11E-05	9.41E-03
75	3.30	3.54E-04	0.	4.12E-03	9.93E-04	1.58E-03	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.13E-05	1.00E-02
76	3.20	2.81E-04	0.	2.13E-03	3.13E-03	1.59E-03	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.15E-05	1.01E-02
77	3.10	2.47E-04	0.	1.47E-03	2.27E-04	1.36E-03	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.17E-05	2.24E-05
78	3.00	2.02E-04	0.	8.78E-04	1.01E-03	1.16E-03	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.19E-05	2.43E-05
79	2.90	1.53E-04	0.	5.15E-04	7.54E-04	7.55E-04	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.21E-05	6.21E-03
80	2.80	1.40E-04	0.	2.35E-04	2.03E-04	4.29E-04	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.23E-05	5.15E-03
81	2.70	8.25E-05	0.	1.41E-04	4.97E-04	1.92E-04	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.25E-05	4.00E-03
82	2.60	3.23E-05	0.	5.40E-05	4.77E-05	7.08E-05	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.27E-05	3.84E-03
83	2.50	2.09E-05	0.	7.58E-06	3.04E-05	1.50E-05	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.29E-05	3.63E-03
84	2.40	0.	0.	5.05E-04	3.97E-05	1.46E-06	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.31E-05	3.51E-03
85	2.30	0.	0.	2.36E-03	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.33E-05	3.43E-03
86	2.20	0.	0.	5.23E-03	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.35E-05	3.35E-03
87	2.10	0.	0.	8.45E-03	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.37E-05	3.27E-03
88	2.00	0.	0.	1.25E-02	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.39E-05	3.19E-03
89	1.90	0.	0.	2.93E-02	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.41E-05	3.11E-03
90	1.80	0.	0.	2.42E-02	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.43E-05	3.03E-03
91	1.70	0.	0.	2.01E-02	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.45E-05	2.95E-03
92	1.60	0.	0.	2.51E-02	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.47E-05	2.87E-03
93	1.50	0.	0.	2.77E-02	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.49E-05	2.79E-03
94	1.40	0.	0.	2.96E-02	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.51E-05	2.71E-03
95	1.30	0.	0.	2.00E-02	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.53E-05	2.63E-03
96	1.20	0.	0.	1.60E-02	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.55E-05	2.55E-03
97	1.10	0.	0.	1.00E-02	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.57E-05	2.47E-03
98	1.00	0.	0.	1.51E-02	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.59E-05	2.39E-03
99	0.90	0.	0.	1.10E-02	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.61E-05	2.31E-03
100	0.80	0.	0.	5.40E-03	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.63E-05	2.23E-03
101	0.70	0.	0.	1.50E-03	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.65E-05	2.15E-03
102	0.60	0.	0.	6.54E-03	0.	0.	0.	0.	5.33E-03	1.41E-04	1.45E-05	1.67E-05	2.07E-03

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY E.V.	Q2 S-R BANDS	Q2 S-R CONT.	TEMPERATURE (DEGREES K)	8000.	NO BETA	NO GAMMA	1.0	0- PHOTO-DET (IONS)	FREE-FREE M	0 P.F.	TOTAL AIR	
1 10.70	0.	0.	1.25E-01	0.	0.	0.	0.	1.1E-04	0.95E-09	1.30E-05	5.13E-06	1.25E-01
2 10.80	0.	0.	1.04E-01	0.	0.	0.	0.	1.12E-04	9.21E-09	1.31E-05	5.14E-06	1.04E-01
3 10.90	0.	0.	9.96E-02	0.	0.	0.	0.	1.12E-04	9.40E-09	1.32E-05	5.14E-06	9.97E-02
4 10.90	0.	0.	8.71E-02	0.	0.	0.	0.	1.12E-04	9.75E-09	1.32E-05	5.14E-06	8.73E-02
5 10.90	0.	0.	6.94E-02	0.	0.	0.	0.	1.12E-04	1.00E-09	1.32E-05	5.15E-06	6.95E-02
6 10.90	0.	0.	6.74E-02	0.	0.	0.	0.	1.12E-04	1.03E-09	1.33E-05	5.15E-06	6.77E-02
7 10.90	0.	0.	6.00E-02	0.	0.	0.	0.	1.12E-04	1.06E-09	1.33E-05	5.15E-06	6.01E-02
8 10.90	0.	0.	4.67E-02	0.	0.	0.	0.	1.12E-04	1.10E-09	1.33E-05	5.16E-06	4.68E-02
9 9.90	0.	0.	4.68E-02	0.	0.	0.	0.	1.13E-04	1.13E-09	1.34E-05	5.16E-06	4.70E-02
10 9.90	0.	0.	4.03E-02	0.	0.	0.	0.	1.13E-04	1.17E-09	1.34E-05	5.16E-06	4.04E-02
11 9.90	0.	0.	3.11E-02	0.	0.	0.	0.	1.13E-04	1.20E-09	1.34E-05	5.16E-06	3.12E-02
12 9.90	0.	0.	3.32E-02	0.	0.	0.	0.	1.13E-04	1.24E-09	1.35E-05	5.17E-06	3.34E-02
13 9.90	0.	0.	2.51E-02	0.	0.	0.	0.	1.13E-04	1.28E-09	1.35E-05	5.17E-06	2.52E-02
14 9.90	0.	0.	2.18E-02	0.	0.	0.	0.	1.14E-04	1.32E-09	1.35E-05	5.17E-06	2.19E-02
15 9.90	0.	0.	5.59E-04	0.	0.	0.	0.	1.14E-04	1.37E-09	1.36E-05	5.18E-06	2.25E-02
16 9.90	0.	0.	6.24E-04	0.	0.	0.	0.	1.15E-04	1.41E-09	1.36E-05	5.18E-06	1.62E-02
17 9.90	0.	0.	7.56E-04	0.	0.	0.	0.	1.15E-04	1.46E-09	1.36E-05	5.18E-06	1.67E-02
18 9.90	0.	0.	8.92E-04	0.	0.	0.	0.	1.16E-04	1.51E-09	1.37E-05	5.19E-06	1.48E-02
19 8.90	0.	0.	1.04E-03	0.	0.	0.	0.	1.16E-04	1.56E-09	1.37E-05	5.19E-06	1.21E-02
20 8.90	0.	0.	1.04E-03	0.	0.	0.	0.	1.16E-04	1.61E-09	1.38E-05	5.19E-06	1.13E-02
21 8.90	0.	0.	1.04E-03	0.	0.	0.	0.	1.17E-04	1.67E-09	1.37E-05	5.19E-06	9.01E-03
22 8.90	0.	0.	1.00E-04	0.	0.	0.	0.	1.17E-04	1.73E-09	1.38E-05	5.20E-06	9.03E-03
23 8.90	0.	0.	9.74E-04	0.	0.	0.	0.	1.18E-04	1.79E-09	1.39E-05	5.20E-06	7.17E-03
24 8.90	0.	0.	9.51E-04	0.	0.	0.	0.	1.18E-04	1.86E-09	1.39E-05	5.20E-06	6.80E-03
25 8.90	0.	0.	9.29E-04	0.	0.	0.	0.	1.19E-04	1.92E-09	1.40E-05	5.22E-06	5.41E-03
26 8.90	0.	0.	9.01E-04	0.	0.	0.	0.	1.19E-04	2.00E-09	1.41E-05	5.20E-06	5.25E-03
27 8.90	0.	0.	8.64E-04	0.	0.	0.	0.	1.20E-04	2.07E-09	1.40E-05	5.24E-06	4.25E-03
28 8.90	0.	0.	8.38E-04	0.	0.	0.	0.	1.21E-04	2.15E-09	1.40E-05	5.40E-06	4.08E-03
29 7.90	0.	0.	8.02E-04	0.	0.	0.	0.	1.21E-04	2.23E-09	1.40E-05	5.46E-06	3.33E-03
30 7.90	0.	0.	7.65E-04	0.	0.	0.	0.	1.22E-04	2.32E-09	1.40E-05	5.52E-06	3.25E-03
31 7.90	0.	0.	7.29E-04	0.	0.	0.	0.	1.23E-04	2.41E-09	1.40E-05	5.58E-06	2.72E-03
32 7.90	0.	0.	6.92E-04	0.	0.	0.	0.	1.23E-04	2.51E-09	1.40E-05	5.64E-06	2.47E-03
33 7.90	0.	0.	6.54E-04	0.	0.	0.	0.	1.24E-04	2.61E-09	1.40E-05	5.70E-06	2.17E-03
34 7.90	0.	0.	6.19E-04	0.	0.	0.	0.	1.24E-04	2.72E-09	1.40E-05	5.75E-06	1.90E-03
35 7.90	0.	0.	5.83E-04	0.	0.	0.	0.	1.25E-04	2.83E-09	1.40E-05	5.81E-06	1.74E-03
36 7.90	0.	0.	5.44E-04	0.	0.	0.	0.	1.26E-04	2.95E-09	1.40E-05	5.87E-06	1.58E-03
37 7.90	0.	0.	5.04E-04	0.	0.	0.	0.	1.27E-04	3.08E-09	1.40E-05	5.93E-06	1.55E-03
38 7.90	0.	0.	4.69E-04	0.	0.	0.	0.	1.28E-04	3.21E-09	1.40E-05	5.99E-06	1.35E-03
39 6.90	0.	0.	4.31E-04	0.	0.	0.	0.	1.29E-04	3.36E-09	1.40E-05	6.05E-06	1.17E-03
40 6.90	0.	0.	4.51E-04	0.	0.	0.	0.	1.30E-04	3.51E-09	1.40E-05	6.11E-06	1.74E-03
41 6.90	0.	0.	4.51E-04	0.	0.	0.	0.	1.31E-04	3.67E-09	1.40E-05	6.17E-06	2.15E-03
42 6.90	0.	0.	4.11E-04	0.	0.	0.	0.	1.32E-04	3.84E-09	1.40E-05	6.23E-06	1.57E-03
43 6.90	0.	0.	2.07E-04	0.	0.	0.	0.	1.33E-04	4.01E-09	1.40E-05	6.30E-06	1.98E-03
44 6.90	0.	0.	1.21E-04	0.	0.	0.	0.	1.34E-04	4.21E-09	1.40E-05	6.36E-06	2.46E-03
45 6.90	0.	0.	2.99E-05	0.	0.	0.	0.	1.35E-04	4.41E-09	1.40E-05	6.44E-06	1.21E-03
46 6.90	0.	0.	2.95E-05	0.	0.	0.	0.	1.36E-04	4.61E-09	1.40E-05	6.52E-06	1.74E-03
47 6.90	0.	0.	1.19E-05	0.	0.	0.	0.	1.37E-04	4.82E-09	1.40E-05	6.60E-06	2.99E-03
48 6.90	0.	0.	1.73E-06	0.	0.	0.	0.	1.38E-04	5.03E-09	1.40E-05	6.68E-06	1.17E-03
49 5.90	0.	0.	1.93E-07	0.	0.	0.	0.	1.39E-04	5.24E-09	1.40E-05	6.76E-06	1.34E-03
50 5.90	0.	0.	4.76E-09	0.	0.	0.	0.	1.40E-04	5.46E-09	1.40E-05	6.84E-06	1.35E-03
51 5.90	0.	0.	4.53E-05	0.	0.	0.	0.	1.40E-04	5.99E-09	1.40E-05	7.20E-06	1.36E-03

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 8000. DENSITY (GM/CC) 1.293E-04 (10.0E-02 NORMAL)

PHOTON 02 S-R ENERGY BANDS	H2 1ST POS.	H2 2ND POS.	H2* 1ST NEG.	NO BETA	AO GAMMA	NO VIB-ROT	NO 2	0- PHOTO-DET	FREE-FREE (IONS)	N P.E.	0 P.E.	TOTAL AVE P.E.
52	5.50	5.50E-05	0.	0.	2.00E-04	1.52E-03	0.	1.19E-04	6.29E-08	3.36E-06	7.33E-06	1.02E-03
53	5.50	5.50E-05	0.	0.	2.50E-04	1.52E-03	0.	1.20E-04	6.64E-08	3.59E-06	7.45E-06	1.07E-03
54	5.40	5.68E-05	0.	0.	2.11E-04	9.00E-04	0.	1.20E-04	7.02E-08	3.35E-06	7.50E-06	1.08E-03
55	5.30	5.31E-05	0.	0.	2.10E-04	1.44E-03	0.	1.21E-04	7.32E-08	3.51E-06	7.50E-06	1.08E-03
56	5.20	5.31E-05	0.	0.	2.22E-04	1.43E-04	0.	1.22E-04	7.06E-08	3.51E-06	7.50E-06	1.13E-03
57	5.10	5.29E-05	0.	0.	2.12E-04	1.05E-03	0.	1.22E-04	6.34E-08	3.59E-06	8.12E-06	1.13E-03
58	5.00	5.29E-05	0.	0.	1.82E-04	8.95E-04	0.	1.24E-04	6.05E-08	3.68E-06	8.12E-06	1.23E-03
59	4.90	1.97E-05	0.	0.	1.92E-04	8.40E-04	0.	1.25E-04	6.10E-08	3.78E-06	8.12E-06	1.19E-03
60	4.80	1.99E-05	0.	0.	2.00E-04	7.71E-04	0.	1.26E-04	6.01E-08	3.67E-06	8.70E-06	1.12E-03
61	4.70	2.09E-05	0.	0.	1.86E-04	6.17E-04	0.	1.27E-04	1.07E-07	3.66E-06	8.91E-06	1.12E-03
62	4.60	2.40E-05	0.	0.	1.82E-04	5.88E-04	0.	1.28E-04	1.14E-07	4.07E-06	9.13E-06	1.30E-04
63	4.50	2.33E-05	0.	1.31E-05	1.53E-04	3.98E-04	0.	1.29E-04	1.21E-07	4.20E-06	9.35E-06	1.30E-04
64	4.40	2.26E-05	0.	5.33E-05	1.47E-04	3.04E-04	0.	1.30E-04	1.30E-07	4.32E-06	9.55E-06	6.73E-04
65	4.30	1.96E-05	0.	1.19E-04	1.29E-04	1.62E-04	0.	1.31E-04	1.19E-07	4.45E-06	9.78E-06	1.19E-04
66	4.20	1.74E-05	0.	5.18E-04	1.32E-04	1.36E-04	0.	1.32E-04	1.50E-07	4.59E-06	9.99E-06	9.90E-04
67	4.10	1.53E-05	0.	1.38E-04	1.16E-04	3.41E-05	0.	1.33E-04	1.91E-07	4.72E-06	9.73E-07	4.40E-04
68	4.00	1.31E-05	0.	7.14E-04	1.07E-04	2.58E-05	0.	1.33E-04	1.93E-07	3.40E-06	1.00E-06	9.99E-04
69	3.90	1.02E-05	0.	3.20E-04	1.67E-05	1.16E-05	0.	1.33E-04	1.67E-07	2.64E-06	1.03E-06	8.93E-04
70	3.80	1.01E-05	0.	4.11E-04	1.51E-04	9.20E-05	0.	1.32E-04	2.02E-07	2.70E-06	1.06E-06	8.93E-04
71	3.70	8.46E-06	0.	6.07E-04	2.85E-05	7.37E-05	0.	1.30E-04	2.19E-07	2.37E-06	1.31E-06	8.46E-04
72	3.60	7.48E-06	0.	2.69E-04	1.65E-04	7.37E-05	0.	1.22E-04	2.80E-07	2.36E-06	1.58E-06	6.97E-04
73	3.50	6.19E-06	0.	4.95E-04	7.12E-04	4.98E-05	0.	1.11E-04	2.89E-07	2.68E-06	1.50E-06	1.34E-03
74	3.40	5.14E-06	0.	1.95E-04	3.68E-05	5.50E-05	0.	6.43E-05	2.03E-07	3.04E-06	1.75E-06	3.62E-04
75	3.30	3.90E-06	0.	2.24E-04	2.52E-04	3.15E-05	0.	6.44E-05	3.09E-07	3.40E-06	1.84E-06	5.98E-04
76	3.20	3.05E-06	0.	1.95E-04	7.94E-04	3.71E-05	0.	6.45E-05	3.59E-07	3.76E-06	2.14E-06	1.02E-03
77	3.10	2.72E-06	0.	4.72E-05	2.85E-05	7.37E-05	0.	6.46E-05	3.74E-07	3.81E-06	2.34E-06	2.58E-04
78	3.00	2.28E-06	0.	4.72E-05	2.85E-05	7.37E-05	0.	6.46E-05	3.74E-07	3.81E-06	2.34E-06	2.58E-04
79	2.90	1.68E-06	0.	2.78E-05	1.91E-04	1.94E-05	0.	6.49E-05	4.37E-07	4.07E-06	2.74E-06	3.10E-04
80	2.80	1.63E-06	0.	1.60E-05	5.16E-05	1.04E-05	0.	6.50E-05	5.08E-07	5.27E-06	2.95E-06	3.10E-04
81	2.70	9.07E-07	0.	5.78E-06	1.24E-04	4.72E-06	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
82	2.60	3.58E-07	0.	2.98E-06	1.21E-05	4.72E-06	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
83	2.50	3.58E-08	0.	4.08E-07	7.73E-06	3.65E-07	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
84	2.40	0.	0.	1.01E-05	3.56E-08	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
85	2.30	0.	1.45E-04	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
86	2.20	0.	2.87E-04	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
87	2.10	0.	4.84E-04	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
88	2.00	0.	6.82E-04	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
89	1.90	0.	1.58E-03	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
90	1.80	0.	1.30E-03	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
91	1.70	0.	1.56E-03	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
92	1.60	0.	1.09E-03	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
93	1.50	0.	1.35E-03	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
94	1.40	0.	1.09E-03	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
95	1.30	0.	1.06E-03	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
96	1.20	0.	1.15E-03	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
97	1.10	0.	6.68E-04	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
98	1.00	0.	8.18E-04	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
99	0.90	0.	6.45E-04	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
100	0.80	0.	2.96E-04	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
101	0.70	0.	6.08E-05	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04
102	0.60	0.	3.28E-06	0.	0.	0.	0.	6.50E-05	5.66E-07	5.68E-06	3.17E-06	3.12E-04

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CM ³)		1.233E-05 (10.0E-05 NORMAL)		0.000		NO		0- FREQ-FREE		M		TOTAL AIR	
PHOTON ENERGY BANDS E.V.		NO. 1		NO. 2 S-R		NO. 1		BETA		PHOTO-DET (100%)		P.E.		P.E.	
CONTR.		NO. 1		CONTR.		NO. 1		BETA		NO. 2		P.E.		P.E.	
1 10.70 0.	0.	2.82E-03	0.	0.	0.	0.	0.	0.	0.	3.12E-06	6.34E-10	1.92E-06	5.28E-07	2.82E-03	0.
2 10.60 0.	0.	2.35E-03	0.	0.	0.	0.	0.	0.	0.	3.12E-06	7.03E-10	1.97E-06	5.28E-07	2.35E-03	0.
3 10.50 0.	0.	2.23E-03	0.	0.	0.	0.	0.	0.	0.	3.13E-06	7.24E-10	1.98E-06	5.28E-07	2.23E-03	0.
4 10.40 0.	0.	1.97E-03	0.	0.	0.	0.	0.	0.	0.	3.13E-06	7.45E-10	1.98E-06	5.28E-07	1.97E-03	0.
5 10.30 0.	0.	1.57E-03	0.	0.	0.	0.	0.	0.	0.	3.13E-06	7.67E-10	1.99E-06	5.21E-07	1.57E-03	0.
6 10.20 0.	0.	1.53E-03	0.	0.	0.	0.	0.	0.	0.	3.14E-06	7.90E-10	1.99E-06	5.21E-07	1.53E-03	0.
7 10.10 0.	0.	1.35E-03	0.	0.	0.	0.	0.	0.	0.	3.14E-06	8.14E-10	2.00E-06	5.21E-07	1.35E-03	0.
8 10.00 0.	0.	1.05E-03	0.	0.	0.	0.	0.	0.	0.	3.15E-06	8.38E-10	2.00E-06	5.22E-07	1.05E-03	0.
9 9.90 0.	0.	1.06E-03	0.	0.	0.	0.	0.	0.	0.	3.15E-06	8.64E-10	2.01E-06	5.22E-07	1.06E-03	0.
10 9.80 0.	0.	6.10E-04	0.	0.	0.	0.	0.	0.	0.	3.16E-06	8.91E-10	2.01E-06	5.22E-07	6.10E-04	0.
11 9.70 0.	0.	7.02E-04	0.	0.	0.	0.	0.	0.	0.	3.16E-06	9.19E-10	2.02E-06	5.23E-07	7.02E-04	0.
12 9.60 0.	0.	7.50E-04	0.	0.	0.	0.	0.	0.	0.	3.17E-06	9.48E-10	2.02E-06	5.23E-07	7.50E-04	0.
13 9.50 0.	0.	4.34E-06	5.67E-04	0.	0.	0.	0.	0.	0.	3.18E-06	9.79E-10	2.03E-06	5.23E-07	5.70E-04	0.
14 9.40 0.	0.	5.03E-06	4.33E-04	0.	0.	0.	0.	0.	0.	3.19E-06	1.01E-09	2.04E-06	5.23E-07	5.82E-04	0.
15 9.30 0.	0.	5.72E-06	4.92E-04	0.	0.	0.	0.	0.	0.	3.20E-06	1.04E-09	2.04E-06	5.24E-07	5.82E-04	0.
16 9.20 0.	0.	6.42E-06	3.48E-04	0.	0.	0.	0.	0.	0.	3.21E-06	1.08E-09	2.05E-06	5.24E-07	5.99E-04	0.
17 9.10 0.	0.	7.75E-06	3.58E-04	0.	0.	0.	0.	0.	0.	3.22E-06	1.11E-09	2.06E-06	5.24E-07	5.78E-04	0.
18 9.00 0.	0.	9.21E-06	2.92E-04	0.	0.	0.	0.	0.	0.	3.23E-06	1.15E-09	2.06E-06	5.25E-07	5.65E-04	0.
19 8.90 0.	0.	1.07E-05	2.47E-04	0.	0.	0.	0.	0.	0.	3.24E-06	1.19E-09	2.06E-06	5.25E-07	5.25E-04	0.
20 8.80 0.	0.	1.11E-05	2.32E-04	0.	0.	0.	0.	0.	0.	3.24E-06	1.23E-09	2.06E-06	5.25E-07	2.48E-04	0.
21 8.70 0.	0.	1.07E-05	1.77E-04	0.	0.	0.	0.	0.	0.	3.27E-06	1.28E-09	2.06E-06	5.25E-07	1.92E-04	0.
22 8.60 0.	0.	1.03E-05	1.78E-04	0.	0.	0.	0.	0.	0.	3.28E-06	1.32E-09	2.06E-06	5.25E-07	1.92E-04	0.
23 8.50 0.	0.	9.99E-06	1.37E-04	0.	0.	0.	0.	0.	0.	3.29E-06	1.37E-09	2.06E-06	5.25E-07	1.51E-04	0.
24 8.40 0.	0.	9.75E-06	1.31E-04	0.	0.	0.	0.	0.	0.	3.31E-06	1.42E-09	2.06E-06	5.25E-07	1.45E-04	0.
25 8.30 0.	0.	9.52E-06	9.04E-05	0.	0.	0.	0.	0.	0.	3.33E-06	1.47E-09	2.06E-06	5.25E-07	1.13E-04	0.
26 8.20 0.	0.	9.24E-06	9.54E-05	0.	0.	0.	0.	0.	0.	3.34E-06	1.52E-09	2.06E-06	5.25E-07	1.09E-04	0.
27 8.10 0.	0.	8.91E-06	7.53E-05	0.	0.	0.	0.	0.	0.	3.36E-06	1.56E-09	2.06E-06	5.25E-07	5.41E-05	0.
28 8.00 0.	0.	8.59E-06	5.42E-05	0.	0.	0.	0.	0.	0.	3.38E-06	1.61E-09	2.06E-06	5.25E-07	6.32E-05	0.
29 7.90 0.	0.	8.22E-06	5.42E-05	0.	0.	0.	0.	0.	0.	3.39E-06	1.71E-09	2.06E-06	5.25E-07	6.40E-05	0.
30 7.80 0.	0.	7.85E-06	5.31E-05	0.	0.	0.	0.	0.	0.	3.41E-06	1.77E-09	2.06E-06	5.25E-07	6.55E-05	0.
31 7.70 0.	0.	7.47E-06	4.20E-05	0.	0.	0.	0.	0.	0.	3.43E-06	1.84E-09	2.06E-06	5.25E-07	5.40E-05	0.
32 7.60 0.	0.	7.10E-06	3.70E-05	0.	0.	0.	0.	0.	0.	3.45E-06	1.92E-09	2.06E-06	5.25E-07	4.87E-05	0.
33 7.50 0.	0.	6.72E-06	3.11E-05	0.	0.	0.	0.	0.	0.	3.46E-06	1.99E-09	2.06E-06	5.25E-07	4.24E-05	0.
34 7.40 0.	0.	6.35E-06	2.59E-05	0.	0.	0.	0.	0.	0.	3.48E-06	2.06E-09	2.06E-06	5.25E-07	3.63E-05	0.
35 7.30 0.	0.	5.97E-06	2.25E-05	0.	0.	0.	0.	0.	0.	3.50E-06	2.15E-09	2.06E-06	5.25E-07	3.25E-05	0.
36 7.20 0.	0.	5.59E-06	1.86E-05	0.	0.	0.	0.	0.	0.	3.52E-06	2.25E-09	2.06E-06	5.25E-07	2.90E-05	0.
37 7.10 0.	0.	5.19E-06	1.65E-05	0.	0.	0.	0.	0.	0.	3.55E-06	2.35E-09	2.06E-06	5.25E-07	2.60E-05	0.
38 7.00 0.	0.	4.79E-06	1.36E-05	0.	0.	0.	0.	0.	0.	3.58E-06	2.45E-09	2.06E-06	5.25E-07	2.76E-05	0.
39 6.90 1.31E-08	0.	1.14E-05	0.	0.	0.	0.	0.	0.	0.	3.61E-06	2.56E-09	2.06E-06	5.25E-07	2.42E-05	0.
40 6.80 1.02E-08	0.	1.02E-05	0.	0.	0.	0.	0.	0.	0.	3.64E-06	2.68E-09	2.06E-06	5.25E-07	2.26E-05	0.
41 6.70 7.29E-09	0.	1.11E-06	0.	0.	0.	0.	0.	0.	0.	3.67E-06	2.80E-09	2.06E-06	5.25E-07	3.79E-05	0.
42 6.60 2.21E-09	0.	6.61E-06	0.	0.	0.	0.	0.	0.	0.	3.70E-06	2.93E-09	2.06E-06	5.25E-07	2.41E-05	0.
43 6.50 2.27E-09	0.	4.68E-06	0.	0.	0.	0.	0.	0.	0.	3.72E-06	3.07E-09	2.06E-06	5.25E-07	3.44E-05	0.
44 6.40 3.19E-09	0.	2.74E-06	0.	0.	0.	0.	0.	0.	0.	3.75E-06	3.22E-09	2.06E-06	5.25E-07	4.09E-05	0.
45 6.30 6.54E-09	0.	1.42E-06	0.	0.	0.	0.	0.	0.	0.	3.78E-06	3.37E-09	2.06E-06	5.25E-07	2.15E-05	0.
46 6.20 1.89E-09	0.	6.64E-07	0.	0.	0.	0.	0.	0.	0.	3.81E-06	3.54E-09	2.06E-06	5.25E-07	2.97E-05	0.
47 6.10 7.23E-08	0.	2.69E-07	0.	0.	0.	0.	0.	0.	0.	3.84E-06	3.72E-09	2.06E-06	5.25E-07	4.43E-05	0.
48 6.00 1.83E-07	0.	6.17E-08	0.	0.	0.	0.	0.	0.	0.	3.87E-06	3.91E-09	2.06E-06	5.25E-07	2.40E-05	0.
49 5.90 2.84E-07	0.	1.06E-09	0.	0.	0.	0.	0.	0.	0.	3.89E-06	4.11E-09	2.06E-06	5.25E-07	2.30E-05	0.
50 5.80 4.15E-07	0.	1.04E-10	0.	0.	0.	0.	0.	0.	0.	3.91E-06	4.33E-09	2.06E-06	5.25E-07	2.31E-05	0.
51 5.70 4.64E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.93E-06	4.56E-09	2.06E-06	5.25E-07	2.31E-05	0.

TEMPERATURE (DEGREES K) 8000. DENSITY (GM/CC) 1.293E-09 (10.0E-03 NORMAL)

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ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 8900. DENSITY (GM/CC) 1.2932-86 (10.00-04 NORMAL)

PHOTON ENERGY E.V.	02 S-P BANDS	02 S-R CONT.	N2 B-H NO. 1	NO BETA	NO GAMMA	HO 2	0- PHOTO-DET (10MS)	0- FREE-FREE N	0 P.F.	TOTAL AIR	
1 10.70 0.	0.	0.	3.29E-05	0.	0.	0.	9.69E-08	6.50E-11	2.11E-07	5.16E-08	3.32E-05
2 10.60 0.	0.	0.	2.73E-05	0.	0.	0.	9.64E-08	6.77E-11	2.12E-07	5.16E-08	2.77E-05
3 10.50 0.	0.	0.	2.62E-05	0.	0.	0.	9.67E-08	6.97E-11	2.13E-07	5.16E-08	2.65E-05
4 10.40 0.	0.	0.	2.55E-05	0.	0.	0.	9.69E-08	7.17E-11	2.14E-07	5.16E-08	2.58E-05
5 10.30 0.	0.	0.	1.92E-05	0.	0.	0.	9.70E-08	7.30E-11	2.15E-07	5.16E-08	2.30E-05
6 10.20 0.	0.	0.	1.76E-05	0.	0.	0.	9.71E-08	7.40E-11	2.15E-07	5.16E-08	2.18E-05
7 10.10 0.	0.	0.	1.90E-05	0.	0.	0.	9.73E-08	7.50E-11	2.16E-07	5.16E-08	2.05E-05
8 10.00 0.	0.	0.	1.23E-05	0.	0.	0.	9.74E-08	8.07E-11	2.16E-07	5.16E-08	1.27E-05
9 9.90 0.	0.	0.	1.23E-05	0.	0.	0.	9.76E-08	8.32E-11	2.17E-07	5.16E-08	1.27E-05
10 9.80 0.	0.	0.	1.06E-05	0.	0.	0.	9.77E-08	8.58E-11	2.17E-07	5.16E-08	1.10E-05
11 9.70 0.	0.	0.	8.17E-06	0.	0.	0.	9.79E-08	8.85E-11	2.18E-07	5.16E-08	8.54E-06
12 9.60 0.	0.	0.	8.73E-06	0.	0.	0.	9.81E-08	9.13E-11	2.19E-07	5.16E-08	8.10E-06
13 9.50 0.	4.31E-08	0.	6.61E-06	0.	0.	0.	9.83E-08	9.42E-11	2.19E-07	5.16E-08	7.02E-06
14 9.40 0.	5.00E-08	5.74E-06	0.	0.	0.	0.	9.84E-08	9.73E-11	2.20E-07	5.16E-08	6.10E-06
15 9.30 0.	5.69E-08	5.73E-06	0.	0.	0.	0.	9.90E-08	1.00E-10	2.20E-07	5.16E-08	5.97E-06
16 9.20 0.	6.38E-08	4.06E-06	0.	0.	0.	0.	9.98E-08	1.04E-10	2.20E-07	5.16E-08	5.22E-06
17 9.10 0.	7.71E-08	4.14E-06	0.	0.	0.	0.	9.97E-08	1.07E-10	2.20E-07	5.16E-08	4.45E-06
18 9.00 0.	5.15E-08	3.41E-06	0.	0.	0.	0.	10.00E-08	1.11E-10	2.20E-07	5.16E-08	3.71E-06
19 8.90 0.	1.06E-07	2.87E-06	0.	0.	0.	0.	10.00E-08	1.13E-10	2.20E-07	5.16E-08	3.16E-06
20 8.80 0.	1.10E-07	2.71E-06	0.	0.	0.	0.	1.01E-07	1.19E-10	2.20E-07	5.16E-08	3.03E-06
21 8.70 0.	1.04E-07	2.06E-06	0.	0.	0.	0.	1.01E-07	1.23E-10	2.20E-07	5.16E-08	2.30E-06
22 8.60 0.	1.02E-07	2.08E-06	0.	0.	0.	0.	1.01E-07	1.27E-10	2.20E-07	5.16E-08	2.39E-06
23 8.50 0.	9.93E-08	1.60E-06	0.	0.	0.	0.	1.02E-07	1.32E-10	2.20E-07	5.16E-08	1.91E-06
24 8.40 0.	9.69E-08	1.53E-06	0.	0.	0.	0.	1.02E-07	1.37E-10	2.20E-07	5.16E-08	1.83E-06
25 8.30 0.	9.47E-08	1.13E-06	0.	0.	0.	0.	1.03E-07	1.42E-10	2.20E-07	5.16E-08	1.45E-06
26 8.20 0.	9.18E-08	1.11E-06	0.	0.	0.	0.	1.03E-07	1.47E-10	2.20E-07	5.16E-08	1.41E-06
27 8.10 0.	8.86E-08	6.54E-07	0.	0.	0.	0.	1.04E-07	1.52E-10	2.20E-07	5.16E-08	1.16E-06
28 8.00 0.	8.54E-08	6.17E-07	0.	0.	0.	0.	1.04E-07	1.56E-10	2.20E-07	5.16E-08	1.12E-06
29 7.90 0.	8.17E-08	6.31E-07	0.	0.	0.	0.	1.05E-07	1.64E-10	2.20E-07	5.16E-08	9.27E-07
30 7.80 0.	7.80E-08	6.19E-07	0.	0.	0.	0.	1.05E-07	1.71E-10	2.20E-07	5.16E-08	9.12E-07
31 7.70 0.	7.43E-08	4.89E-07	0.	0.	0.	0.	1.06E-07	1.77E-10	2.20E-07	5.16E-08	7.68E-07
32 7.60 0.	7.05E-08	4.31E-07	3.12E-11	0.	0.	0.	1.07E-07	1.89E-10	2.20E-07	5.16E-08	7.20E-07
33 7.50 0.	6.68E-08	3.63E-07	2.05E-10	0.	0.	0.	1.07E-07	1.92E-10	2.20E-07	5.16E-08	6.49E-07
34 7.40 0.	6.31E-08	3.01E-07	8.14E-10	0.	0.	0.	1.08E-07	2.00E-10	2.20E-07	5.16E-08	5.85E-07
35 7.30 0.	5.94E-08	2.62E-07	4.66E-09	0.	0.	0.	1.08E-07	2.08E-10	2.20E-07	5.16E-08	5.47E-07
36 7.20 0.	5.59E-08	2.16E-07	1.33E-08	0.	0.	0.	1.09E-07	2.17E-10	2.20E-07	5.16E-08	5.07E-07
37 7.10 0.	5.16E-08	1.92E-07	2.94E-08	0.	0.	0.	1.10E-07	2.26E-10	2.20E-07	5.16E-08	4.94E-07
38 7.00 0.	0.	1.61E-07	9.61E-08	0.	0.	0.	1.11E-07	2.36E-10	2.20E-07	5.16E-08	4.93E-07
39 6.90 1.30E-10	0.	1.35E-07	0.	0.	0.	0.	1.12E-07	2.47E-10	2.20E-07	5.16E-08	4.43E-07
40 6.80 1.08E-10	0.	1.18E-07	0.	0.	0.	0.	1.13E-07	2.58E-10	2.20E-07	5.16E-08	4.16E-07
41 6.70 7.24E-11	0.	9.44E-08	0.	0.	0.	0.	1.13E-07	2.70E-10	2.20E-07	5.16E-08	3.16E-07
42 6.60 4.19E-11	0.	7.70E-08	0.	0.	0.	0.	1.14E-07	2.82E-10	2.20E-07	5.16E-08	4.43E-07
43 6.50 2.29E-11	0.	5.45E-08	0.	0.	0.	0.	1.15E-07	2.95E-10	2.20E-07	5.16E-08	6.35E-07
44 6.40 3.17E-11	0.	3.19E-08	2.16E-09	3.54E-07	0.	0.	1.16E-07	3.10E-10	2.20E-07	5.16E-08	6.42E-07
45 6.30 6.50E-11	0.	1.65E-08	9.05E-09	1.54E-07	0.	0.	1.17E-07	3.25E-10	2.20E-07	5.16E-08	6.50E-07
46 6.20 1.87E-10	0.	1.76E-09	1.16E-08	2.47E-07	0.	0.	1.18E-07	3.41E-10	2.20E-07	5.16E-08	6.83E-07
47 6.10 7.21E-10	0.	3.13E-09	3.10E-08	1.38E-07	0.	0.	1.19E-07	3.58E-10	2.20E-07	5.16E-08	6.75E-07
48 6.00 1.82E-09	0.	7.16E-10	2.49E-08	1.38E-07	0.	0.	1.20E-07	3.76E-10	2.20E-07	5.16E-08	6.88E-07
49 5.90 2.63E-09	0.	5.08E-11	3.47E-08	1.55E-07	0.	0.	1.20E-07	3.94E-10	2.20E-07	5.16E-08	7.01E-07
50 5.80 4.11E-09	0.	1.23E-12	4.58E-08	1.44E-07	0.	0.	1.19E-07	4.16E-10	2.20E-07	5.16E-08	7.14E-07
51 5.70 4.61E-09	0.	0.	4.79E-08	1.43E-07	0.	0.	1.18E-07	4.39E-10	2.20E-07	5.16E-08	7.26E-07

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		800C.		DENSITY (GM/CC)		1.293E-06 (10.0E-04 NORMAL)		O-		FREE-FREE		N		O		TOTAL AIR	
PHOTON 02 S-R		M2		N2+		N3		BETA		NO		NO		NO		NO	
ENERGY BANDS		1ST POS.		2ND POS.		1ST NEG.		2ND NEG.		1ST POS.		2ND POS.		1ST NEG.		2ND NEG.	
52	5.60 5.80E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
53	5.50 5.80E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
54	5.40 5.70E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
55	5.30 5.60E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
56	5.20 5.50E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
57	5.10 5.40E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
58	5.00 5.30E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
59	4.90 5.20E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
60	4.80 5.10E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	4.70 5.00E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
62	4.60 4.90E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
63	4.50 4.80E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
64	4.40 4.70E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
65	4.30 4.60E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
66	4.20 4.50E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
67	4.10 4.40E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
68	4.00 4.30E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
69	3.90 4.20E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
70	3.80 4.10E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	3.70 4.00E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
72	3.60 3.90E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
73	3.50 3.80E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
74	3.40 3.70E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
75	3.30 3.60E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
76	3.20 3.50E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
77	3.10 3.40E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
78	3.00 3.30E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
79	2.90 3.20E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
80	2.80 3.10E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
81	2.70 3.00E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
82	2.60 2.90E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
83	2.50 2.80E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
84	2.40 2.70E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
85	2.30 2.60E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
86	2.20 2.50E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
87	2.10 2.40E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
88	2.00 2.30E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
89	1.90 2.20E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
90	1.80 2.10E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
91	1.70 2.00E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
92	1.60 1.90E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
93	1.50 1.80E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
94	1.40 1.70E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
95	1.30 1.60E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
96	1.20 1.50E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
97	1.10 1.40E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
98	1.00 1.30E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
99	0.90 1.20E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
100	0.80 1.10E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
101	0.70 1.00E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
102	0.60 0.90E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)										DENSITY (GM/CC) 1.2932-07 (19.0E-09 NORMAL)	
PHOTON ENERGY BANDS E.V.	Q2 S-R CONT.	N2 B-W NO. 1	BETA	NO SAMMA	NO PHOTO-DET (100%)	O- P.S.	FREE-FREE P.S.	N P.S.	D P.E.	TOTAL AIR	
1 10.70 0.	0.	3.21E-07	0.	0.	0.	0.	0.	0.	0.	0.	
2 10.60 0.	0.	2.67E-07	0.	0.	0.	0.	0.	0.	0.	0.	
3 10.50 0.	0.	2.56E-07	0.	0.	0.	0.	0.	0.	0.	0.	
4 10.40 0.	0.	2.24E-07	0.	0.	0.	0.	0.	0.	0.	0.	
5 10.30 0.	0.	1.78E-07	0.	0.	0.	0.	0.	0.	0.	0.	
6 10.20 0.	0.	1.74E-07	0.	0.	0.	0.	0.	0.	0.	0.	
7 10.10 0.	0.	1.54E-07	0.	0.	0.	0.	0.	0.	0.	0.	
8 10.00 0.	0.	1.20E-07	0.	0.	0.	0.	0.	0.	0.	0.	
9 9.90 0.	0.	1.20E-07	0.	0.	0.	0.	0.	0.	0.	0.	
10 9.80 0.	0.	1.08E-07	0.	0.	0.	0.	0.	0.	0.	0.	
11 9.70 0.	0.	7.98E-08	0.	0.	0.	0.	0.	0.	0.	0.	
12 9.60 0.	0.	8.53E-08	0.	0.	0.	0.	0.	0.	0.	0.	
13 9.50 0.	0.	4.14E-10	0.	0.	0.	0.	0.	0.	0.	0.	
14 9.40 0.	0.	4.95E-10	0.	0.	0.	0.	0.	0.	0.	0.	
15 9.30 0.	0.	5.55E-10	0.	0.	0.	0.	0.	0.	0.	0.	
16 9.20 0.	0.	6.15E-10	0.	0.	0.	0.	0.	0.	0.	0.	
17 9.10 0.	0.	7.47E-10	0.	0.	0.	0.	0.	0.	0.	0.	
18 9.00 0.	0.	8.07E-10	0.	0.	0.	0.	0.	0.	0.	0.	
19 8.90 0.	0.	1.03E-09	0.	0.	0.	0.	0.	0.	0.	0.	
20 8.80 0.	0.	1.07E-09	0.	0.	0.	0.	0.	0.	0.	0.	
21 8.70 0.	0.	1.05E-09	0.	0.	0.	0.	0.	0.	0.	0.	
22 8.60 0.	0.	9.92E-10	0.	0.	0.	0.	0.	0.	0.	0.	
23 8.50 0.	0.	9.62E-10	0.	0.	0.	0.	0.	0.	0.	0.	
24 8.40 0.	0.	9.39E-10	0.	0.	0.	0.	0.	0.	0.	0.	
25 8.30 0.	0.	9.15E-10	0.	0.	0.	0.	0.	0.	0.	0.	
26 8.20 0.	0.	8.89E-10	0.	0.	0.	0.	0.	0.	0.	0.	
27 8.10 0.	0.	8.63E-10	0.	0.	0.	0.	0.	0.	0.	0.	
28 8.00 0.	0.	8.29E-10	0.	0.	0.	0.	0.	0.	0.	0.	
29 7.90 0.	0.	7.92E-10	0.	0.	0.	0.	0.	0.	0.	0.	
30 7.80 0.	0.	7.56E-10	0.	0.	0.	0.	0.	0.	0.	0.	
31 7.70 0.	0.	7.20E-10	0.	0.	0.	0.	0.	0.	0.	0.	
32 7.60 0.	0.	6.84E-10	0.	0.	0.	0.	0.	0.	0.	0.	
33 7.50 0.	0.	6.48E-10	0.	0.	0.	0.	0.	0.	0.	0.	
34 7.40 0.	0.	6.11E-10	0.	0.	0.	0.	0.	0.	0.	0.	
35 7.30 0.	0.	5.75E-10	0.	0.	0.	0.	0.	0.	0.	0.	
36 7.20 0.	0.	5.38E-10	0.	0.	0.	0.	0.	0.	0.	0.	
37 7.10 0.	0.	5.02E-10	0.	0.	0.	0.	0.	0.	0.	0.	
38 7.00 0.	0.	4.65E-10	0.	0.	0.	0.	0.	0.	0.	0.	
39 6.90 0.	0.	4.29E-10	0.	0.	0.	0.	0.	0.	0.	0.	
40 6.80 0.	0.	3.92E-10	0.	0.	0.	0.	0.	0.	0.	0.	
41 6.70 0.	0.	3.56E-10	0.	0.	0.	0.	0.	0.	0.	0.	
42 6.60 0.	0.	3.20E-10	0.	0.	0.	0.	0.	0.	0.	0.	
43 6.50 0.	0.	2.84E-10	0.	0.	0.	0.	0.	0.	0.	0.	
44 6.40 0.	0.	2.48E-10	0.	0.	0.	0.	0.	0.	0.	0.	
45 6.30 0.	0.	2.12E-10	0.	0.	0.	0.	0.	0.	0.	0.	
46 6.20 0.	0.	1.76E-10	0.	0.	0.	0.	0.	0.	0.	0.	
47 6.10 0.	0.	1.40E-10	0.	0.	0.	0.	0.	0.	0.	0.	
48 6.00 0.	0.	1.04E-10	0.	0.	0.	0.	0.	0.	0.	0.	
49 5.90 0.	0.	7.75E-11	0.	0.	0.	0.	0.	0.	0.	0.	
50 5.80 0.	0.	5.06E-11	0.	0.	0.	0.	0.	0.	0.	0.	
51 5.70 0.	0.	2.40E-11	0.	0.	0.	0.	0.	0.	0.	0.	

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-B		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-07		(10.0E-85 NORMAL)		0		TOTAL AIR				
ENERGY BANDS	1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	BETA	NO	AD	GAMMA	NO	NO	PHOTO-DET (IONS)	FREE-FREE	N	P.E.	0	P.E.
52 5.60 5.48E-11	0.	0.	0.	0.	3.31E-10	2.42E-09	0.	0.	3.10E-09	4.31E-11	5.10E-09	7.27E-09	7.27E-09	1.87E-09	1.87E-09	1.87E-09
53 5.50 5.47E-11	0.	0.	0.	0.	4.11E-10	2.42E-09	0.	0.	3.10E-09	4.31E-11	5.10E-09	7.27E-09	7.27E-09	1.87E-09	1.87E-09	1.87E-09
54 5.40 5.35E-11	0.	0.	0.	0.	3.30E-10	1.43E-09	0.	0.	3.20E-09	5.04E-11	5.40E-09	7.32E-09	7.32E-09	1.81E-09	1.81E-09	1.81E-09
55 5.30 5.25E-11	0.	0.	0.	0.	3.75E-10	2.29E-09	0.	0.	3.22E-09	5.35E-11	5.55E-09	7.67E-09	7.67E-09	1.92E-09	1.92E-09	1.92E-09
56 5.20 5.15E-11	0.	0.	0.	0.	3.53E-10	1.19E-09	0.	0.	3.24E-09	5.84E-11	5.63E-09	7.86E-09	7.86E-09	1.93E-09	1.93E-09	1.93E-09
57 5.10 5.24E-11	0.	0.	0.	0.	3.57E-10	1.67E-09	0.	0.	1.19E-17	3.27E-09	5.80E-11	5.74E-09	8.95E-09	1.91E-09	1.91E-09	1.91E-09
58 5.00 5.34E-11	0.	0.	0.	0.	2.89E-10	1.41E-09	0.	0.	1.19E-17	3.29E-09	6.35E-11	5.90E-09	8.24E-09	1.92E-09	1.92E-09	1.92E-09
59 4.90 5.94E-11	0.	0.	0.	0.	3.05E-10	1.31E-09	0.	0.	1.19E-17	3.32E-09	6.74E-11	6.00E-09	8.47E-09	1.93E-09	1.93E-09	1.93E-09
60 4.80 5.99E-11	0.	0.	0.	0.	3.10E-10	1.21E-09	0.	0.	1.19E-17	3.35E-09	7.17E-11	6.20E-09	8.63E-09	1.94E-09	1.94E-09	1.94E-09
61 4.70 5.06E-11	0.	0.	0.	0.	2.92E-10	9.61E-10	0.	0.	1.19E-17	3.37E-09	7.64E-11	6.32E-09	8.80E-09	1.95E-09	1.95E-09	1.95E-09
62 4.60 5.36E-11	0.	0.	0.	0.	2.90E-10	9.35E-10	0.	0.	1.19E-17	3.39E-09	8.15E-11	6.52E-09	9.00E-09	1.96E-09	1.96E-09	1.96E-09
63 4.50 5.24E-11	0.	0.	0.	0.	2.93E-10	4.80E-10	0.	0.	1.19E-17	3.40E-09	8.71E-11	6.72E-09	9.27E-09	2.04E-09	2.04E-09	2.04E-09
64 4.40 5.24E-11	0.	0.	0.	0.	2.93E-10	4.80E-10	0.	0.	1.19E-17	3.40E-09	9.32E-11	6.93E-09	9.49E-09	2.08E-09	2.08E-09	2.08E-09
65 4.30 5.19E-11	0.	0.	0.	0.	2.88E-10	2.59E-10	0.	0.	1.19E-17	3.40E-09	9.90E-11	7.14E-09	9.71E-09	2.12E-09	2.12E-09	2.12E-09
66 4.20 5.19E-11	0.	0.	0.	0.	2.88E-10	2.59E-10	0.	0.	1.19E-17	3.40E-09	1.07E-10	7.35E-09	9.93E-09	2.17E-09	2.17E-09	2.17E-09
67 4.10 5.19E-11	0.	0.	0.	0.	1.57E-10	5.42E-11	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
68 4.00 5.19E-11	0.	0.	0.	0.	1.57E-10	5.42E-11	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
69 3.90 5.06E-11	0.	0.	0.	0.	1.40E-10	4.10E-11	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
70 3.80 5.06E-11	0.	0.	0.	0.	1.40E-10	4.10E-11	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
71 3.70 5.06E-11	0.	0.	0.	0.	1.56E-09	2.74E-09	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
72 3.60 7.05E-12	0.	0.	0.	0.	1.17E-09	1.77E-09	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
73 3.50 6.09E-12	0.	0.	0.	0.	1.17E-09	1.77E-09	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
74 3.40 5.06E-12	0.	0.	0.	0.	5.71E-10	3.53E-09	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
75 3.30 5.06E-12	0.	0.	0.	0.	5.88E-10	2.41E-09	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
76 3.20 5.06E-12	0.	0.	0.	0.	2.95E-10	6.12E-11	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
77 3.10 5.06E-12	0.	0.	0.	0.	2.31E-10	5.53E-09	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
78 3.00 2.10E-12	0.	0.	0.	0.	1.21E-10	2.44E-09	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
79 2.90 1.65E-12	0.	0.	0.	0.	7.13E-11	1.83E-09	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
80 2.80 1.65E-12	0.	0.	0.	0.	3.26E-11	1.83E-09	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
81 2.70 8.03E-13	0.	0.	0.	0.	1.49E-11	1.21E-09	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
82 2.60 3.47E-13	0.	0.	0.	0.	7.61E-12	1.16E-09	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
83 2.50 2.27E-14	0.	0.	0.	0.	1.84E-12	7.40E-10	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
84 2.40 0.	0.	0.	0.	0.	6.99E-11	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
85 2.30 0.	0.	0.	0.	0.	3.71E-10	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
86 2.20 0.	0.	0.	0.	0.	7.24E-10	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
87 2.10 0.	0.	0.	0.	0.	1.17E-09	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
88 2.00 0.	0.	0.	0.	0.	1.76E-09	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
89 1.90 0.	0.	0.	0.	0.	4.05E-09	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
90 1.80 0.	0.	0.	0.	0.	3.35E-09	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
91 1.70 0.	0.	0.	0.	0.	4.05E-09	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
92 1.60 0.	0.	0.	0.	0.	2.79E-09	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
93 1.50 0.	0.	0.	0.	0.	3.47E-09	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
94 1.40 0.	0.	0.	0.	0.	3.83E-09	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
95 1.30 0.	0.	0.	0.	0.	2.72E-09	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
96 1.20 0.	0.	0.	0.	0.	2.80E-09	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
97 1.10 0.	0.	0.	0.	0.	2.22E-09	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
98 1.00 0.	0.	0.	0.	0.	2.10E-09	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
99 0.90 0.	0.	0.	0.	0.	1.45E-09	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
100 0.80 0.	0.	0.	0.	0.	7.61E-10	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
101 0.70 0.	0.	0.	0.	0.	2.80E-10	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09
102 0.60 0.	0.	0.	0.	0.	8.30E-12	0.	0.	0.	1.19E-17	3.40E-09	1.37E-10	7.56E-09	1.01E-09	2.22E-09	2.22E-09	2.22E-09

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

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ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON Q2 5-R ENERGY BANDS		TEMPERATURE (DEGREES K)		8800.		DENSITY (GM/CC) 1.293E-06 (1.9-9E-06 NORMAL)		FREE-FREE PHOTO-DEY (10MS)		N		TOTAL AIR	
1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	NO RETA	NO GAMMA	NO VIB-ROT	NO 2	0-	0-	P.S.	P.E.	0	P.E.
52	5.60 4.89E-13	0.	0.	2.93E-12	2.15E-11	0.	0.	9.15E-11	5.22E-12	5.04E-10	0.00E-10	1.31E-09	
53	5.50 4.90E-13	0.	0.	2.64E-12	2.14E-11	0.	0.	9.20E-11	4.46E-12	5.00E-10	7.80E-10	1.32E-09	
54	5.40 4.99E-13	0.	0.	2.98E-12	1.27E-11	0.	0.	9.25E-11	4.71E-12	5.14E-10	7.12E-10	1.34E-09	
55	5.30 4.68E-13	0.	0.	3.07E-12	2.33E-11	0.	0.	9.31E-11	4.90E-12	5.20E-10	7.26E-10	1.37E-09	
56	5.20 4.18E-13	0.	0.	3.13E-12	1.04E-11	0.	0.	9.37E-11	5.29E-12	5.26E-10	7.44E-10	1.39E-09	
57	5.10 2.90E-13	0.	0.	2.99E-12	1.85E-11	0.	0.	9.46E-11	5.59E-12	5.39E-10	7.52E-10	1.42E-09	
58	5.00 2.09E-13	0.	0.	2.56E-12	1.25E-11	0.	0.	9.54E-11	5.94E-12	5.52E-10	7.88E-10	1.45E-09	
59	4.90 1.74E-13	0.	0.	2.75E-12	1.14E-11	0.	0.	9.64E-11	6.31E-12	5.67E-10	7.98E-10	1.48E-09	
60	4.80 1.75E-13	0.	0.	2.61E-12	1.05E-11	0.	0.	9.74E-11	6.71E-12	5.80E-10	8.17E-10	1.51E-09	
61	4.70 1.04E-13	0.	0.	2.61E-12	8.66E-12	0.	0.	9.84E-11	7.15E-12	5.94E-10	8.37E-10	1.53E-09	
62	4.60 2.11E-13	0.	0.	2.56E-12	8.27E-12	0.	0.	9.94E-11	7.63E-12	6.10E-10	8.57E-10	1.56E-09	
63	4.50 2.05E-13	0.	0.	2.15E-12	5.60E-12	0.	0.	9.94E-11	8.15E-12	6.27E-10	8.78E-10	1.58E-09	
64	4.40 2.00E-13	0.	0.	1.80E-12	4.30E-12	0.	0.	9.94E-11	8.72E-12	6.43E-10	8.99E-10	1.61E-09	
65	4.30 1.74E-13	0.	0.	2.53E-12	1.12E-11	0.	0.	9.94E-11	9.35E-12	6.60E-10	9.20E-10	1.63E-09	
66	4.20 1.53E-13	0.	0.	1.85E-12	1.92E-12	0.	0.	9.94E-11	1.00E-11	6.88E-10	9.41E-10	1.66E-09	
67	4.10 1.35E-13	0.	0.	3.02E-12	0.	0.	0.	9.94E-11	1.02E-11	7.15E-10	9.62E-10	1.68E-09	
68	4.00 1.14E-13	0.	0.	1.50E-12	3.67E-13	0.	0.	9.94E-11	1.04E-11	7.47E-10	9.83E-10	1.71E-09	
69	3.90 0.98E-14	0.	0.	1.24E-12	1.61E-13	0.	0.	9.94E-11	1.06E-11	7.79E-10	1.00E-09	1.73E-09	
70	3.80 9.47E-14	0.	0.	9.24E-12	4.19E-10	1.29E-12	0.	9.94E-11	1.08E-11	8.11E-10	1.02E-09	1.75E-09	
71	3.70 7.47E-14	0.	0.	1.37E-11	7.65E-11	0.46E-13	0.	9.94E-11	1.10E-11	8.43E-10	1.04E-09	1.77E-09	
72	3.60 6.31E-14	0.	0.	5.97E-12	5.06E-13	1.04E-12	0.	9.94E-11	1.12E-11	8.75E-10	1.06E-09	1.79E-09	
73	3.50 5.45E-14	0.	0.	1.02E-11	1.95E-08	7.01E-13	0.	9.94E-11	1.14E-11	9.07E-10	1.08E-09	1.81E-09	
74	3.40 4.52E-14	0.	0.	4.59E-12	1.02E-10	7.73E-13	0.	9.94E-11	1.16E-11	9.39E-10	1.10E-09	1.83E-09	
75	3.30 3.43E-14	0.	0.	5.07E-12	6.91E-10	9.42E-13	0.	9.94E-11	1.18E-11	9.71E-10	1.12E-09	1.85E-09	
76	3.20 2.72E-14	0.	0.	2.98E-12	2.19E-09	5.44E-13	0.	9.94E-11	1.20E-11	1.00E-09	1.14E-09	1.87E-09	
77	3.10 2.48E-14	0.	0.	1.02E-12	1.50E-10	4.60E-13	0.	9.94E-11	1.22E-11	1.03E-09	1.16E-09	1.89E-09	
78	3.00 1.95E-14	0.	0.	1.06E-12	7.03E-10	3.98E-13	0.	9.94E-11	1.24E-11	1.06E-09	1.18E-09	1.91E-09	
79	2.90 1.48E-14	0.	0.	6.28E-13	5.25E-10	2.59E-13	0.	9.94E-11	1.26E-11	1.09E-09	1.20E-09	1.93E-09	
80	2.80 1.44E-14	0.	0.	2.09E-13	1.41E-10	1.47E-13	0.	9.94E-11	1.28E-11	1.12E-09	1.22E-09	1.95E-09	
81	2.70 7.99E-15	0.	0.	1.30E-13	3.46E-10	6.57E-14	0.	9.94E-11	1.30E-11	1.15E-09	1.24E-09	1.97E-09	
82	2.60 3.13E-15	0.	0.	6.66E-14	3.32E-11	2.42E-15	0.	9.94E-11	1.32E-11	1.18E-09	1.26E-09	1.99E-09	
83	2.50 2.03E-16	0.	0.	9.13E-15	2.15E-11	5.14E-15	0.	9.94E-11	1.34E-11	1.21E-09	1.28E-09	2.01E-09	
84	2.40 0.	6.12E-13	0.	2.76E-11	5.01E-16	0.	0.	9.94E-11	1.36E-11	1.24E-09	1.30E-09	2.03E-09	
85	2.30 0.	3.25E-12	0.	0.	0.	0.	0.	9.94E-11	1.38E-11	1.27E-09	1.32E-09	2.05E-09	
86	2.20 0.	6.34E-17	0.	0.	0.	0.	0.	9.94E-11	1.40E-11	1.30E-09	1.34E-09	2.07E-09	
87	2.10 0.	1.03E-11	0.	0.	0.	0.	0.	9.94E-11	1.42E-11	1.33E-09	1.36E-09	2.09E-09	
88	2.00 0.	1.54E-11	0.	0.	0.	0.	0.	9.94E-11	1.44E-11	1.36E-09	1.38E-09	2.11E-09	
89	1.90 0.	3.56E-11	0.	0.	0.	0.	0.	9.94E-11	1.46E-11	1.39E-09	1.40E-09	2.13E-09	
90	1.80 0.	2.93E-11	0.	0.	0.	0.	0.	9.94E-11	1.48E-11	1.42E-09	1.42E-09	2.15E-09	
91	1.70 0.	3.54E-11	0.	0.	0.	0.	0.	9.94E-11	1.50E-11	1.45E-09	1.44E-09	2.17E-09	
92	1.60 0.	2.44E-11	0.	0.	0.	0.	0.	9.94E-11	1.52E-11	1.48E-09	1.46E-09	2.19E-09	
93	1.50 0.	3.04E-11	0.	0.	0.	0.	0.	9.94E-11	1.54E-11	1.51E-09	1.48E-09	2.21E-09	
94	1.40 0.	3.36E-11	0.	0.	0.	0.	0.	9.94E-11	1.56E-11	1.54E-09	1.50E-09	2.23E-09	
95	1.30 0.	2.34E-11	0.	0.	0.	0.	0.	9.94E-11	1.58E-11	1.57E-09	1.52E-09	2.25E-09	
96	1.20 0.	2.53E-11	0.	0.	0.	0.	0.	9.94E-11	1.60E-11	1.60E-09	1.54E-09	2.27E-09	
97	1.10 0.	1.94E-11	0.	0.	0.	0.	0.	9.94E-11	1.62E-11	1.63E-09	1.56E-09	2.29E-09	
98	1.00 0.	1.04E-11	0.	0.	0.	0.	0.	9.94E-11	1.64E-11	1.66E-09	1.58E-09	2.31E-09	
99	0.90 0.	1.45E-11	0.	0.	0.	0.	0.	9.94E-11	1.66E-11	1.69E-09	1.60E-09	2.33E-09	
100	0.80 0.	6.66E-12	0.	0.	0.	0.	0.	9.94E-11	1.68E-11	1.72E-09	1.62E-09	2.35E-09	
101	0.70 0.	1.07E-12	0.	0.	0.	0.	0.	9.94E-11	1.70E-11	1.75E-09	1.64E-09	2.37E-09	
102	0.60 0.	7.32E-14	0.	0.	0.	0.	0.	9.94E-11	1.72E-11	1.78E-09	1.66E-09	2.39E-09	

[illegible]

52	5.03	1.32-15	0.	1.99E-14	1.46E-13	0.	0.	2.19E-12	3.44E-13	4.08E-11	5.76E-11	1.11E-10
53	5.59	1.45E-5	0.	2.47E-14	1.45E-13	0.	0.	2.20E-12	3.93E-13	4.12E-11	5.06E-11	1.04E-10
54	5.0	1.46E-5	0.	2.02E-14	8.60E-14	0.	0.	2.21E-12	3.04E-13	4.14E-11	5.06E-11	1.04E-10
55	5.0	1.32E-5	0.	2.08E-14	1.38E-13	0.	0.	2.22E-12	4.04E-13	4.21E-11	6.08E-11	1.10E-10
56	5.20	2.2E-5	0.	2.12E-14	7.17E-14	0.	0.	2.24E-12	4.30E-13	4.24E-11	6.23E-11	1.08E-10
57	5.15	2.4E-5	0.	2.03E-14	1.00E-14	0.	0.	2.26E-12	4.56E-13	4.37E-11	6.38E-11	1.10E-10
58	5.52	1.47E-5	0.	1.74E-14	8.49E-14	0.	0.	2.28E-12	4.83E-13	4.48E-11	6.53E-11	1.12E-10
59	5.30	1.22E-5	0.	1.66E-14	8.02E-14	0.	0.	2.29E-12	5.14E-13	4.59E-11	6.68E-11	1.14E-10
60	4.70	1.28E-5	0.	1.71E-14	7.36E-14	0.	0.	2.31E-12	5.47E-13	4.70E-11	6.84E-11	1.15E-10
61	4.70	1.28E-5	0.	1.71E-14	5.09E-14	0.	0.	2.33E-12	5.82E-13	4.81E-11	7.00E-11	1.17E-10
62	4.63	1.45E-5	0.	1.74E-14	5.61E-14	0.	0.	2.35E-12	6.21E-13	4.94E-11	7.17E-11	1.24E-10
63	4.0	1.45E-5	0.	1.46E-14	1.80E-14	0.	0.	2.37E-12	6.53E-13	5.10E-11	7.34E-11	1.24E-10
64	4.0	1.45E-5	0.	1.40E-14	2.92E-14	0.	0.	2.39E-12	7.10E-13	5.25E-11	7.51E-11	1.18E-10
65	4.30	1.32E-5	0.	1.23E-14	1.59E-14	0.	0.	2.41E-12	7.61E-13	5.41E-11	7.19E-12	6.95E-11
66	4.30	1.32E-5	0.	1.26E-14	1.30E-14	0.	0.	2.43E-12	8.17E-13	5.57E-11	7.42E-12	6.95E-11
67	4.30	9.49E-6	0.	1.99E-14	0.	0.	0.	2.44E-12	8.74E-13	4.02E-11	7.04E-12	5.12E-11
68	4.00	8.10E-6	0.	0.6E-13	0.	0.	0.	2.45E-12	9.47E-13	3.12E-11	7.07E-12	4.26E-11
69	3.90	6.2E-6	0.	7.5E-14	1.0E-13	5.34E-15	0.	2.44E-12	1.102E-12	3.20E-11	8.09E-12	4.47E-11
70	3.0	6.68E-6	0.	0.07E-14	8.79E-15	0.	0.	2.43E-12	1.10E-12	2.45E-11	8.58E-12	4.35E-11
71	3.70	5.2E-6	0.	0.97E-14	1.61E-13	6.4E-15	0.	2.34E-12	1.20E-12	2.58E-11	9.49E-12	4.08E-11
72	3.60	4.45E-6	0.	3.94E-14	1.73E-13	7.0E-15	0.	2.24E-12	1.30E-12	2.86E-11	1.08E-11	5.47E-11
73	3.50	3.02E-6	0.	6.78E-14	4.49E-13	4.76E-15	0.	2.05E-12	1.41E-12	3.26E-11	1.22E-11	6.93E-11
74	3.40	1.17E-6	0.	2.68E-14	2.33E-12	5.25E-15	0.	1.18E-12	1.54E-12	3.49E-11	1.30E-11	5.58E-11
75	3.30	2.49E-6	0.	3.26E-14	1.55E-11	3.65E-15	0.	1.18E-12	1.69E-12	3.62E-11	1.53E-11	7.54E-11
76	3.20	1.91E-6	0.	1.66E-14	5.61E-11	3.94E-15	0.	1.19E-12	1.85E-12	4.37E-11	1.68E-11	1.06E-10
77	3.10	1.08E-6	0.	3.98E-14	3.64E-11	3.16E-15	0.	1.19E-12	2.04E-12	5.02E-11	1.84E-11	9.43E-11
78	3.00	1.38E-6	0.	0.97E-13	1.62E-11	2.70E-15	0.	1.19E-12	2.25E-12	5.47E-11	2.00E-11	9.43E-11
79	2.90	1.06E-6	0.	4.16E-13	1.24E-11	1.76E-15	0.	1.19E-12	2.37E-12	5.92E-11	2.16E-11	9.43E-11
80	2.80	1.06E-6	0.	1.07E-13	2.24E-12	5.98E-15	0.	1.19E-12	2.70E-12	6.40E-11	2.37E-11	9.43E-11
81	2.70	3.69E-7	0.	0.54E-13	7.95E-13	4.46E-16	0.	1.19E-12	3.09E-12	6.90E-11	2.67E-12	8.75E-11
82	2.60	2.16E-7	0.	4.3E-13	7.94E-13	1.64E-16	0.	1.19E-12	3.07E-12	2.32E-11	6.78E-12	4.93E-11
83	2.50	1.49E-8	0.	0.0E-17	6.34E-13	3.49E-16	0.	1.19E-12	3.90E-12	3.37E-11	7.79E-12	4.78E-11
84	2.40	0.	0.	0.0E-17	6.34E-13	3.49E-16	0.	1.19E-12	4.41E-12	4.11E-11	9.60E-12	5.90E-11
85	2.30	0.	0.	2.1E-4	0.	0.	0.	1.19E-12	5.02E-12	5.11E-11	1.15E-11	6.08E-11
86	2.20	0.	0.	4.1E-4	0.	0.	0.	1.19E-12	5.74E-12	6.03E-11	1.39E-11	9.43E-11
87	2.10	0.	0.	6.7E-4	0.	0.	0.	1.19E-12	6.41E-12	7.02E-11	1.62E-11	9.43E-11
88	2.0E-3	0.	0.	0.	0.	0.	0.	1.19E-12	7.66E-12	8.01E-11	1.86E-11	1.08E-10
89	2.0E-3	0.	0.	0.	0.	0.	0.	1.19E-12	8.95E-12	9.03E-11	2.10E-11	1.42E-10
90	1.0E-3	0.	0.	0.	0.	0.	0.	1.19E-12	1.05E-11	1.05E-10	2.47E-11	1.82E-10
91	1.0E-3	0.	0.	0.	0.	0.	0.	1.19E-12	1.25E-11	1.25E-10	2.86E-11	1.74E-10
92	1.0E-3	0.	0.	0.	0.	0.	0.	1.19E-12	1.50E-11	1.50E-10	3.33E-11	1.64E-10
93	9E-5	0.	0.	0.	0.	0.	0.	3.79E-13	1.83E-11	1.83E-11	2.81E-11	1.21E-10
94	3E-5	0.	0.	0.	0.	0.	0.	0.	2.25E-11	1.00E-10	2.85E-11	1.55E-10
95	1.5E-3	0.	0.	1.	0.	0.	0.	2.82E-11	1.53E-10	3.78E-11	2.59E-10	1.95E-10
96	1.0E-3	0.	0.	0.	0.	0.	0.	3.60E-11	2.04E-10	4.24E-11	2.33E-10	1.35E-10
97	1.2E-3	0.	0.	0.	0.	0.	0.	4.69E-11	2.42E-10	5.20E-11	3.42E-10	1.47E-10
98	1.2E-3	0.	0.	0.	0.	0.	0.	6.24E-11	2.92E-10	6.91E-11	4.40E-10	1.95E-10
99	0.9E-3	0.	0.	0.	0.	0.	0.	8.03E-11	3.37E-10	7.89E-11	4.40E-10	1.95E-10
100	0.9E-3	0.	0.	0.	0.	0.	0.	1.23E-10	2.86E-10	5.97E-11	4.78E-10	1.95E-10
101	1.1E-4	0.	0.	0.	0.	0.	0.	1.00E-10	3.27E-10	6.06E-11	5.01E-10	2.00E-10
102	0.6E-3	0.	0.	0.	0.	0.	0.	2.00E-10	3.60E-10	7.75E-11	7.44E-10	2.00E-10

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY E.V.	O2 S-R CONT.	N2 R-M NO. 1	TEMPERATURE (DEGREES K)		NO BETA	NO GAMMA	DENSITY (GM/CC) 1.293E-02 (1.0E-01 NORMAL)		O- Z	FREE-FREE P.E.		O P.E.	TOTAL AIR	
			9000.											
1 10.70 0.	0.	3.13E 01	0.	0.	0.	0.	3.14E-01	2.31E-05	9.12E 09	2.31E-03	2.31E-03	4.07E 01	0.	0.
2 10.80 0.	0.	2.69E 01	0.	0.	0.	0.	3.15E-01	2.30E-05	9.12E 09	2.32E-03	2.10E-03	2.60E 01	0.	0.
3 10.90 0.	0.	2.57E 01	0.	0.	0.	0.	3.15E-01	2.49E-05	2.33E-03	2.10E-03	2.10E-03	2.60E 01	0.	0.
4 10.40 0.	0.	2.28E 01	0.	0.	0.	0.	3.16E-01	2.52E-05	2.34E-03	2.10E-03	2.10E-03	2.32E 01	0.	0.
5 10.30 0.	0.	1.85E 01	0.	0.	0.	0.	3.16E-01	2.60E-05	2.35E-03	2.10E-03	2.10E-03	1.88E 01	0.	0.
6 10.20 0.	0.	1.83E 01	0.	0.	0.	0.	3.16E-01	2.67E-05	2.35E-03	2.10E-03	2.10E-03	1.88E 01	0.	0.
7 10.10 0.	0.	1.64E 01	0.	0.	0.	0.	3.17E-01	2.75E-05	2.36E-03	2.10E-03	2.10E-03	1.64E 01	0.	0.
8 10.00 0.	0.	1.34E 01	0.	0.	0.	0.	3.17E-01	2.84E-05	2.36E-03	2.10E-03	2.10E-03	1.34E 01	0.	0.
9 9.90 0.	0.	1.32E 01	0.	0.	0.	0.	3.18E-01	2.93E-05	2.37E-03	2.10E-03	2.10E-03	1.32E 01	0.	0.
10 9.80 0.	0.	1.15E 01	0.	0.	0.	0.	3.18E-01	3.12E-05	2.38E-03	2.10E-03	2.10E-03	1.15E 01	0.	0.
11 9.70 0.	0.	9.12E 00	0.	0.	0.	0.	3.19E-01	3.11E-05	2.38E-03	2.10E-03	2.10E-03	9.44E 00	0.	0.
12 9.60 0.	0.	8.74E 00	0.	0.	0.	0.	3.20E-01	3.21E-05	2.39E-03	2.10E-03	2.10E-03	1.01E 02	0.	0.
13 9.50 0.	0.	7.54E 00	0.	0.	0.	0.	3.20E-01	3.31E-05	2.40E-03	2.10E-03	2.10E-03	8.08E 00	0.	0.
14 9.40 0.	0.	1.45E 00	0.	0.	0.	0.	3.21E-01	3.42E-05	2.40E-03	2.10E-03	2.10E-03	8.47E 00	0.	0.
15 9.30 0.	0.	1.72E 00	0.	0.	0.	0.	3.22E-01	3.53E-05	2.41E-03	2.10E-03	2.10E-03	8.74E 00	0.	0.
16 9.20 0.	0.	1.99E 00	0.	0.	0.	0.	3.24E-01	3.65E-05	2.42E-03	2.10E-03	2.10E-03	7.74E 00	0.	0.
17 9.10 0.	0.	2.33E 00	0.	0.	0.	0.	3.25E-01	3.77E-05	2.42E-03	2.10E-03	2.10E-03	7.74E 00	0.	0.
18 9.00 0.	0.	2.80E 00	0.	0.	0.	0.	3.26E-01	3.99E-05	2.43E-03	2.10E-03	2.10E-03	7.74E 00	0.	0.
19 8.90 0.	0.	3.21E 00	0.	0.	0.	0.	3.27E-01	4.04E-05	2.43E-03	2.10E-03	2.10E-03	7.74E 00	0.	0.
20 8.80 0.	0.	3.35E 00	0.	0.	0.	0.	3.28E-01	4.17E-05	2.43E-03	2.10E-03	2.10E-03	7.74E 00	0.	0.
21 8.70 0.	0.	3.21E 00	0.	0.	0.	0.	3.28E-01	4.32E-05	2.43E-03	2.10E-03	2.10E-03	6.24E 00	0.	0.
22 8.60 0.	0.	3.09E 00	0.	0.	0.	0.	3.31E-01	4.47E-05	2.43E-03	2.10E-03	2.10E-03	6.15E 00	0.	0.
23 8.50 0.	0.	3.01E 00	0.	0.	0.	0.	3.33E-01	4.63E-05	2.43E-03	2.10E-03	2.10E-03	5.50E 00	0.	0.
24 8.40 0.	0.	2.96E 00	0.	0.	0.	0.	3.33E-01	4.80E-05	2.43E-03	2.10E-03	2.10E-03	5.27E 00	0.	0.
25 8.30 0.	0.	2.92E 00	0.	0.	0.	0.	3.35E-01	4.97E-05	2.43E-03	2.10E-03	2.10E-03	4.83E 00	0.	0.
26 8.20 0.	0.	2.84E 00	0.	0.	0.	0.	3.37E-01	5.16E-05	2.43E-03	2.10E-03	2.10E-03	4.74E 00	0.	0.
27 8.10 0.	0.	2.75E 00	0.	0.	0.	0.	3.39E-01	5.36E-05	2.43E-03	2.10E-03	2.10E-03	4.32E 00	0.	0.
28 8.00 0.	0.	2.65E 00	0.	0.	0.	0.	3.41E-01	5.56E-05	2.43E-03	2.10E-03	2.10E-03	4.19E 00	0.	0.
29 7.90 0.	0.	2.57E 00	0.	0.	0.	0.	3.42E-01	5.77E-05	2.43E-03	2.10E-03	2.10E-03	3.85E 00	0.	0.
30 7.80 0.	0.	2.47E 00	0.	0.	0.	0.	3.45E-01	6.01E-05	2.43E-03	2.10E-03	2.10E-03	3.75E 00	0.	0.
31 7.70 0.	0.	2.36E 00	0.	0.	0.	0.	3.45E-01	6.24E-05	2.43E-03	2.10E-03	2.10E-03	3.67E 00	0.	0.
32 7.60 0.	0.	2.25E 00	0.	0.	0.	0.	3.47E-01	6.49E-05	2.43E-03	2.10E-03	2.10E-03	3.27E 00	0.	0.
33 7.50 0.	0.	2.14E 00	0.	0.	0.	0.	3.49E-01	6.75E-05	2.43E-03	2.10E-03	2.10E-03	3.07E 00	0.	0.
34 7.40 0.	0.	2.03E 00	0.	0.	0.	0.	3.51E-01	7.03E-05	2.43E-03	2.10E-03	2.10E-03	2.69E 00	0.	0.
35 7.30 0.	0.	1.92E 00	0.	0.	0.	0.	3.53E-01	7.32E-05	2.43E-03	2.10E-03	2.10E-03	2.59E 00	0.	0.
36 7.20 0.	0.	1.80E 00	0.	0.	0.	0.	3.55E-01	7.63E-05	2.43E-03	2.10E-03	2.10E-03	2.42E 00	0.	0.
37 7.10 0.	0.	1.68E 00	0.	0.	0.	0.	3.58E-01	7.96E-05	2.43E-03	2.10E-03	2.10E-03	2.55E 00	0.	0.
38 7.00 0.	0.	1.54E-03	0.	0.	0.	0.	3.61E-01	8.31E-05	2.43E-03	2.10E-03	2.10E-03	1.17E 00	0.	0.
39 6.90 0.	0.	1.49E-03	0.	0.	0.	0.	3.64E-01	8.68E-05	2.43E-03	2.10E-03	2.10E-03	1.10E 00	0.	0.
40 6.80 0.	0.	1.41E-01	0.	0.	0.	0.	3.67E-01	9.07E-05	2.43E-03	2.10E-03	2.10E-03	1.07E 00	0.	0.
41 6.70 0.	0.	1.74E-01	0.	0.	0.	0.	3.70E-01	9.48E-05	2.43E-03	2.10E-03	2.10E-03	1.06E 00	0.	0.
42 6.60 0.	0.	1.44E-01	0.	0.	0.	0.	3.72E-01	9.92E-05	2.43E-03	2.10E-03	2.10E-03	1.30E 00	0.	0.
43 6.50 0.	0.	1.05E-01	0.	0.	0.	0.	3.75E-01	1.04E-04	2.43E-03	2.10E-03	2.10E-03	1.05E 00	0.	0.
44 6.40 0.	0.	6.34E-02	0.	0.	0.	0.	3.78E-01	1.09E-04	2.43E-03	2.10E-03	2.10E-03	1.27E 00	0.	0.
45 6.30 0.	0.	3.42E-02	0.	0.	0.	0.	3.81E-01	1.14E-04	2.43E-03	2.10E-03	2.10E-03	1.32E 00	0.	0.
46 6.20 0.	0.	1.66E-02	0.	0.	0.	0.	3.84E-01	1.20E-04	2.43E-03	2.10E-03	2.10E-03	1.62E 00	0.	0.
47 6.10 0.	0.	6.92E-03	0.	0.	0.	0.	3.87E-01	1.26E-04	2.43E-03	2.10E-03	2.10E-03	2.72E 00	0.	0.
48 6.00 0.	0.	1.62E-02	0.	0.	0.	0.	3.90E-01	1.32E-04	2.43E-03	2.10E-03	2.10E-03	1.34E 00	0.	0.
49 5.90 0.	0.	1.15E-04	0.	0.	0.	0.	3.93E-01	1.39E-04	2.43E-03	2.10E-03	2.10E-03	1.50E 00	0.	0.
50 5.80 0.	0.	2.62E-04	0.	0.	0.	0.	3.96E-01	1.46E-04	2.43E-03	2.10E-03	2.10E-03	1.54E 00	0.	0.
51 5.70 0.	0.	1.49E-01	0.	0.	0.	0.	3.99E-01	1.54E-04	2.43E-03	2.10E-03	2.10E-03	1.58E 00	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY BANDS E.V.	PHOTON 02 S-B CON.	TEMPERATURE (DEGREES K)	NO BETA	NO GAMMA	DENSITY (GM/CC)	1.2932-93 (30.02-01 NORMAL)			TOTAL AIR P.E.
						NO	0- PHOTO-DET (IONS)	FREE-FREE P.E.	
1 10.70 0.	0.	2.04E-10	0.	0.	0.	7.89E-03	1.68E-06	2.33E-06	2.45E-04
2 10.50 0.	0.	1.73E-09	0.	0.	0.	7.90E-03	1.89E-06	5.92E-04	2.45E-04
3 10.30 0.	0.	1.67E-09	0.	0.	0.	7.91E-03	1.22E-06	5.95E-04	2.45E-04
4 10.10 0.	0.	1.48E-09	0.	0.	0.	7.92E-03	1.15E-06	5.97E-04	2.45E-04
5 10.00 0.	0.	1.21E-09	0.	0.	0.	7.93E-03	1.10E-06	5.99E-04	2.45E-04
6 10.20 0.	0.	1.19E-09	0.	0.	0.	7.94E-03	1.22E-06	6.00E-04	2.45E-04
7 10.10 0.	0.	1.07E-09	0.	0.	0.	7.95E-03	1.26E-06	6.02E-04	2.45E-04
8 10.00 0.	0.	8.52E-01	0.	0.	0.	7.96E-03	1.30E-06	6.03E-04	2.45E-04
9 9.90 0.	0.	8.30E-01	0.	0.	0.	7.98E-03	1.34E-06	6.05E-04	2.45E-04
10 9.80 0.	0.	7.53E-01	0.	0.	0.	7.99E-03	1.38E-06	6.06E-04	2.45E-04
11 9.70 0.	0.	6.24E-01	0.	0.	0.	8.01E-03	1.42E-06	6.08E-04	2.45E-04
12 9.60 0.	0.	5.36E-01	0.	0.	0.	8.02E-03	1.47E-06	6.09E-04	2.45E-04
13 9.50 0.	1.49E-02	4.94E-01	0.	0.	0.	8.04E-03	1.52E-06	6.11E-04	2.45E-04
14 9.40 0.	1.85E-02	4.34E-01	0.	0.	0.	8.07E-03	1.57E-06	6.13E-04	2.45E-04
15 9.30 0.	2.17E-02	4.38E-01	0.	0.	0.	8.10E-03	1.62E-06	6.14E-04	2.45E-04
16 9.20 0.	2.59E-02	3.25E-01	0.	0.	0.	8.13E-03	1.67E-06	6.16E-04	2.45E-04
17 9.10 0.	3.01E-02	3.28E-01	0.	0.	0.	8.15E-03	1.73E-06	6.18E-04	2.45E-04
18 9.00 0.	3.53E-02	2.75E-01	0.	0.	0.	8.18E-03	1.78E-06	6.20E-04	2.45E-04
19 8.90 0.	4.05E-02	2.38E-01	0.	0.	0.	8.21E-03	1.85E-06	6.23E-04	2.45E-04
20 8.80 0.	4.20E-02	2.24E-01	0.	0.	0.	8.24E-03	1.91E-06	6.25E-04	2.45E-04
21 8.70 0.	3.91E-02	1.74E-01	0.	0.	0.	8.27E-03	1.98E-06	6.28E-04	2.45E-04
22 8.60 0.	3.91E-02	1.77E-01	0.	0.	0.	8.30E-03	2.05E-06	6.31E-04	2.45E-04
23 8.50 0.	3.80E-02	1.40E-01	0.	0.	0.	8.33E-03	2.12E-06	6.34E-04	2.44E-04
24 8.40 0.	3.68E-02	1.04E-01	0.	0.	0.	8.37E-03	2.20E-06	6.38E-04	2.44E-04
25 8.30 0.	3.56E-02	1.02E-01	0.	0.	0.	8.42E-03	2.28E-06	6.42E-04	2.45E-04
26 8.20 0.	3.59E-02	1.02E-01	0.	0.	0.	8.46E-03	2.36E-06	6.46E-04	2.46E-04
27 8.10 0.	3.46E-02	8.01E-02	0.	0.	0.	8.51E-03	2.45E-06	6.50E-04	2.50E-04
28 8.00 0.	3.34E-02	7.75E-02	0.	0.	0.	8.55E-03	2.54E-06	6.55E-04	2.52E-04
29 7.90 0.	3.24E-02	6.15E-02	0.	0.	0.	8.59E-03	2.64E-06	6.59E-04	2.55E-04
30 7.80 0.	3.15E-02	6.07E-02	0.	0.	0.	8.64E-03	2.75E-06	6.58E-04	2.57E-04
31 7.70 0.	2.99E-02	4.90E-02	0.	0.	0.	8.68E-03	2.89E-06	6.58E-04	2.60E-04
32 7.60 0.	2.84E-02	4.39E-02	0.	0.	0.	8.72E-03	2.97E-06	6.57E-04	2.62E-04
33 7.50 0.	2.70E-02	3.74E-02	0.	0.	0.	8.77E-03	3.09E-06	6.57E-04	2.65E-04
34 7.40 0.	2.59E-02	3.18E-02	0.	0.	0.	8.82E-03	3.22E-06	6.57E-04	2.67E-04
35 7.30 0.	2.43E-02	2.91E-02	0.	0.	0.	8.87E-03	3.35E-06	6.56E-04	2.69E-04
36 7.20 0.	2.29E-02	2.36E-02	0.	0.	0.	8.91E-03	3.49E-06	6.56E-04	2.72E-04
37 7.10 0.	2.15E-02	2.13E-02	0.	0.	0.	8.95E-03	3.64E-06	6.56E-04	2.74E-04
38 7.00 0.	2.36E-03	0.	0.	0.	0.	9.00E-03	3.80E-06	6.56E-04	2.77E-04
39 6.90 0.	4.1E-05	0.	0.	0.	0.	9.06E-03	3.97E-06	6.55E-04	2.79E-04
40 6.80 0.	3.64E-05	0.	0.	0.	0.	9.13E-03	4.15E-06	6.55E-04	2.81E-04
41 6.70 0.	3.18E-05	0.	0.	0.	0.	9.20E-03	4.34E-06	6.55E-04	2.84E-04
42 6.60 0.	2.72E-05	0.	0.	0.	0.	9.28E-03	4.54E-06	6.55E-04	2.87E-04
43 6.50 0.	2.26E-05	0.	0.	0.	0.	9.35E-03	4.74E-06	6.55E-04	2.89E-04
44 6.40 0.	1.81E-05	0.	0.	0.	0.	9.43E-03	4.94E-06	6.55E-04	2.92E-04
45 6.30 0.	1.36E-05	0.	0.	0.	0.	9.50E-03	5.14E-06	6.55E-04	2.96E-04
46 6.20 0.	9.1E-06	0.	0.	0.	0.	9.57E-03	5.34E-06	6.55E-04	3.01E-04
47 6.10 0.	4.64E-06	0.	0.	0.	0.	9.65E-03	5.48E-06	6.56E-04	3.06E-04
48 6.00 0.	2.19E-06	0.	0.	0.	0.	9.72E-03	5.67E-06	6.57E-04	3.12E-04
49 5.90 0.	1.05E-06	0.	0.	0.	0.	9.79E-03	5.92E-06	6.59E-04	3.17E-04
50 5.80 0.	5.08E-07	0.	0.	0.	0.	9.86E-03	6.23E-06	6.61E-04	3.22E-04
51 5.70 0.	1.84E-03	0.	0.	0.	0.	9.93E-03	6.60E-06	6.63E-04	3.28E-04

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		9000		TENSITY (CM/CM)		1.203E-04 (10.0E-02 NORMAL)		P.E.		P.E.		TOTAL AIR	
PHOTON ENERGY E.V.	02 S-R BANDS	02 S-R CONT.	N2 B-M NO. 1	NO BETA	NO GAMMA	PHOTO-DET (100%)	FREE-FREE W	W	P.E.	P.E.	P.E.	P.E.	P.E.
1	10.70 0.	0.	6.17E-02	0.	0.	2.21E-04	7.70E-08	1.02E-04	2.24E-05	0.28E-02	0.	2.21E-04	7.70E-08
2	10.60 0.	0.	5.28E-02	0.	0.	2.21E-04	7.02E-08	1.03E-04	2.54E-05	0.24E-02	0.	2.21E-04	7.02E-08
3	10.50 0.	0.	5.06E-02	0.	0.	2.22E-04	6.15E-08	1.03E-04	2.54E-05	0.24E-02	0.	2.22E-04	6.15E-08
4	10.40 0.	0.	4.90E-02	0.	0.	2.22E-04	5.39E-08	1.04E-04	2.53E-05	0.24E-02	0.	2.22E-04	5.39E-08
5	10.30 0.	0.	3.65E-02	0.	0.	2.22E-04	4.46E-08	1.04E-04	2.53E-05	0.24E-02	0.	2.22E-04	4.46E-08
6	10.20 0.	0.	3.59E-02	0.	0.	2.22E-04	3.89E-08	1.04E-04	2.53E-05	0.24E-02	0.	2.22E-04	3.89E-08
7	10.10 0.	0.	3.23E-02	0.	0.	2.23E-04	3.16E-08	1.05E-04	2.53E-05	0.24E-02	0.	2.23E-04	3.16E-08
8	10.00 0.	0.	2.58E-02	0.	0.	2.23E-04	2.44E-08	1.05E-04	2.53E-05	0.24E-02	0.	2.23E-04	2.44E-08
9	9.90 0.	0.	2.00E-02	0.	0.	2.23E-04	1.73E-08	1.05E-04	2.53E-05	0.24E-02	0.	2.23E-04	1.73E-08
10	9.80 0.	0.	2.27E-02	0.	0.	2.24E-04	1.06E-08	1.05E-04	2.53E-05	0.24E-02	0.	2.24E-04	1.06E-08
11	9.70 0.	0.	1.90E-02	0.	0.	2.24E-04	1.03E-07	1.04E-04	2.53E-05	0.24E-02	0.	2.24E-04	1.03E-07
12	9.60 0.	0.	1.92E-02	0.	0.	2.25E-04	1.07E-07	1.04E-04	2.53E-05	0.24E-02	0.	2.25E-04	1.07E-07
13	9.50 0.	1.59E-04	1.46E-02	0.	0.	2.25E-04	1.06E-07	1.04E-04	2.53E-05	0.24E-02	0.	2.25E-04	1.06E-07
14	9.40 0.	1.94E-04	1.32E-02	0.	0.	2.26E-04	1.14E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.26E-04	1.14E-07
15	9.30 0.	2.33E-04	1.32E-02	0.	0.	2.27E-04	1.17E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.27E-04	1.17E-07
16	9.20 0.	2.70E-04	9.69E-03	0.	0.	2.28E-04	1.21E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.28E-04	1.21E-07
17	9.10 0.	3.22E-04	9.69E-03	0.	0.	2.28E-04	1.25E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.28E-04	1.25E-07
18	9.00 0.	3.78E-04	8.31E-03	0.	0.	2.29E-04	1.30E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.29E-04	1.30E-07
19	8.90 0.	4.34E-04	7.14E-03	0.	0.	2.31E-04	1.36E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.31E-04	1.36E-07
20	8.80 0.	4.50E-04	6.78E-03	0.	0.	2.31E-04	1.39E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.31E-04	1.39E-07
21	8.70 0.	4.34E-04	5.31E-03	0.	0.	2.32E-04	1.46E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.32E-04	1.46E-07
22	8.60 0.	4.18E-04	5.37E-03	0.	0.	2.32E-04	1.49E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.32E-04	1.49E-07
23	8.50 0.	4.07E-04	4.25E-03	0.	0.	2.33E-04	1.54E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.33E-04	1.54E-07
24	8.40 0.	4.01E-04	4.08E-03	0.	0.	2.34E-04	1.60E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.34E-04	1.60E-07
25	8.30 0.	3.95E-04	3.15E-03	0.	0.	2.36E-04	1.65E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.36E-04	1.65E-07
26	8.20 0.	3.84E-04	3.08E-03	0.	0.	2.37E-04	1.72E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.37E-04	1.72E-07
27	8.10 0.	3.72E-04	2.42E-03	0.	0.	2.38E-04	1.76E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.38E-04	1.76E-07
28	8.00 0.	3.60E-04	2.54E-03	0.	0.	2.39E-04	1.85E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.39E-04	1.85E-07
29	7.90 0.	3.47E-04	1.85E-03	0.	0.	2.41E-04	1.92E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.41E-04	1.92E-07
30	7.80 0.	3.54E-04	1.93E-03	0.	0.	2.42E-04	2.00E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.42E-04	2.00E-07
31	7.70 0.	3.20E-04	1.98E-03	0.	0.	2.43E-04	2.09E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.43E-04	2.09E-07
32	7.60 0.	3.05E-04	1.93E-03	0.	0.	2.44E-04	2.16E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.44E-04	2.16E-07
33	7.50 0.	2.89E-04	1.14E-03	0.	0.	2.46E-04	2.25E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.46E-04	2.25E-07
34	7.40 0.	2.74E-04	9.60E-04	0.	0.	2.47E-04	2.34E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.47E-04	2.34E-07
35	7.30 0.	2.60E-04	8.59E-04	0.	0.	2.48E-04	2.44E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.48E-04	2.44E-07
36	7.20 0.	2.44E-04	7.15E-04	0.	0.	2.50E-04	2.54E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.50E-04	2.54E-07
37	7.10 0.	2.27E-04	6.44E-04	0.	0.	2.52E-04	2.65E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.52E-04	2.65E-07
38	7.00 0.	2.52E-07	0.	0.	0.	2.54E-04	2.76E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.54E-04	2.76E-07
39	6.90 4.71E-07	0.	5.50E-04	0.	0.	2.54E-04	2.87E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.54E-04	2.87E-07
40	6.80 3.88E-07	0.	4.21E-04	0.	0.	2.56E-04	2.99E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.56E-04	2.99E-07
41	6.70 2.69E-07	0.	3.42E-04	0.	0.	2.56E-04	3.10E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.56E-04	3.10E-07
42	6.60 1.57E-07	0.	2.04E-04	0.	0.	2.62E-04	3.30E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.62E-04	3.30E-07
43	6.50 8.60E-08	0.	2.06E-04	0.	0.	2.64E-04	3.46E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.64E-04	3.46E-07
44	6.40 1.19E-07	0.	1.25E-04	0.	0.	2.66E-04	3.62E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.66E-04	3.62E-07
45	6.30 7.44E-07	0.	6.74E-05	0.	0.	2.68E-04	3.98E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.68E-04	3.98E-07
46	6.20 7.20E-07	0.	1.36E-05	0.	0.	2.70E-04	4.18E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.70E-04	4.18E-07
47	6.10 2.82E-06	0.	1.36E-05	0.	0.	2.72E-04	4.40E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.72E-04	4.40E-07
48	6.00 7.25E-06	0.	3.20E-06	0.	0.	2.74E-04	4.62E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.74E-04	4.62E-07
49	5.90 1.15E-05	0.	1.33E-04	0.	0.	2.76E-04	4.87E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.76E-04	4.87E-07
50	5.80 1.71E-05	0.	5.56E-09	0.	0.	2.78E-04	5.13E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.78E-04	5.13E-07
51	5.70 1.96E-05	0.	0.	0.	0.	2.80E-04	5.40E-07	1.07E-04	2.53E-05	0.24E-02	0.	2.80E-04	5.40E-07

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-04 (10.0E-02 NORMAL)		0		TOTAL AIR	
ENERGY BANDS	N2 1ST POS.	N2 2ND POS.	N2 1ST NEG.	BETA	NO GAMMA	NO VIB-R07	NO 2	0- PHOTO-DET (IONS)	M P.E.	0 P.E.	
52	5.60 2.41E-05	0.	0.	9.70E-05	6.85E-04	0.	0.	2.36E-04	5.41E-07	2.89E-05	3.45E-05 1.18E-03
53	5.50 2.47E-05	0.	0.	1.20E-04	6.67E-04	0.	0.	2.37E-04	5.71E-07	2.89E-05	3.50E-05 1.11E-03
54	5.40 2.55E-05	0.	0.	9.99E-05	4.24E-04	0.	0.	2.38E-04	6.02E-07	2.93E-05	3.56E-05 8.56E-04
55	5.30 2.42E-05	0.	0.	1.03E-04	4.45E-04	0.	0.	2.40E-04	6.38E-07	2.97E-05	3.43E-05 1.07E-03
56	5.20 1.69E-05	0.	0.	1.04E-04	3.61E-04	0.	0.	2.41E-04	6.76E-07	3.01E-05	3.72E-05 7.90E-04
57	5.10 1.58E-05	0.	0.	1.02E-04	4.97E-04	0.	0.	2.43E-04	7.30E-07	3.09E-05	3.80E-05 9.29E-04
58	5.00 1.14E-05	0.	0.	8.90E-05	4.27E-04	0.	0.	2.48E-04	7.31E-07	3.17E-05	3.89E-05 8.44E-04
59	4.90 9.46E-06	0.	0.	9.50E-05	4.14E-04	0.	0.	2.48E-04	8.08E-07	3.26E-05	3.98E-05 8.43E-04
60	4.80 9.49E-06	0.	0.	9.94E-05	3.84E-04	0.	0.	2.50E-04	8.51E-07	3.34E-05	4.07E-05 8.17E-04
61	4.70 1.01E-05	0.	0.	9.37E-05	3.19E-04	0.	0.	2.52E-04	9.17E-07	3.42E-05	4.12E-05 7.51E-04
62	4.60 1.18E-05	0.	0.	9.28E-05	2.99E-04	0.	0.	2.54E-04	9.78E-07	3.53E-05	4.27E-05 7.37E-04
63	4.50 1.16E-05	0.	1.58E-05	7.93E-05	2.59E-04	0.	0.	2.56E-04	1.04E-06	3.59E-05	4.37E-05 6.53E-04
64	4.40 1.19E-05	0.	5.94E-05	7.68E-05	1.54E-04	0.	0.	2.57E-04	1.12E-06	3.77E-05	4.46E-05 6.46E-04
65	4.30 1.02E-05	0.	1.37E-04	6.66E-05	8.65E-05	0.	0.	2.60E-04	1.20E-06	3.89E-05	4.58E-05 4.48E-04
66	4.20 9.08E-06	0.	5.85E-04	7.06E-05	7.02E-05	0.	0.	2.62E-04	1.29E-06	4.02E-05	4.67E-05 1.08E-03
67	4.10 8.09E-06	0.	1.78E-04	6.44E-05	1.79E-05	0.	0.	2.63E-04	1.38E-06	4.15E-05	4.78E-05 6.72E-04
68	4.00 7.09E-06	0.	8.16E-04	5.91E-05	1.34E-05	0.	0.	2.64E-04	1.49E-06	4.27E-05	4.86E-05 6.30E-04
69	3.90 5.95E-06	0.	3.62E-04	4.98E-05	4.02E-06	0.	0.	2.65E-04	1.61E-06	4.36E-05	4.94E-05 7.45E-04
70	3.80 5.95E-06	0.	4.93E-04	3.78E-05	3.24E-05	0.	0.	2.67E-04	1.74E-06	4.46E-05	5.02E-05 7.14E-04
71	3.70 4.79E-06	0.	6.74E-04	3.57E-05	3.95E-05	0.	0.	2.68E-04	1.87E-06	4.56E-05	5.10E-05 1.07E-03
72	3.60 4.10E-06	0.	3.28E-04	3.61E-04	4.32E-05	0.	0.	2.71E-04	2.05E-06	4.69E-05	5.28E-05 1.01E-03
73	3.50 3.60E-06	0.	5.27E-04	1.21E-05	3.32E-05	0.	0.	2.73E-04	2.23E-06	4.82E-05	5.46E-05 2.03E-02
74	3.40 3.03E-06	0.	2.40E-04	7.80E-05	3.33E-05	0.	0.	1.27E-04	2.43E-06	5.06E-05	1.09E-05 5.33E-04
75	3.30 2.34E-06	0.	2.74E-04	4.72E-04	2.41E-05	0.	0.	1.28E-04	2.63E-06	5.31E-05	1.20E-05 9.51E-04
76	3.20 1.89E-06	0.	1.50E-04	1.31E-05	2.43E-05	0.	0.	1.29E-04	2.83E-06	5.56E-05	1.32E-05 1.67E-03
77	3.10 1.70E-06	0.	1.16E-04	1.22E-04	2.13E-05	0.	0.	1.30E-04	3.03E-06	5.81E-05	1.45E-05 4.48E-04
78	3.00 1.44E-06	0.	6.32E-05	4.75E-04	1.68E-05	0.	0.	1.31E-04	3.23E-06	6.06E-05	1.58E-05 4.48E-04
79	2.90 1.08E-06	0.	3.74E-05	3.29E-04	1.25E-05	0.	0.	1.32E-04	3.43E-06	6.31E-05	1.71E-05 5.71E-04
80	2.80 1.08E-06	0.	1.74E-05	1.07E-04	7.35E-06	0.	0.	1.33E-04	3.63E-06	6.56E-05	1.84E-05 5.71E-04
81	2.70 6.14E-07	0.	7.95E-06	2.33E-04	3.45E-06	0.	0.	1.34E-04	3.83E-06	6.81E-05	1.97E-05 4.55E-04
82	2.60 2.51E-07	0.	4.07E-06	2.19E-05	1.32E-06	0.	0.	1.35E-04	4.03E-06	7.06E-05	2.10E-05 2.49E-04
83	2.50 1.65E-08	0.	5.31E-07	1.57E-05	2.67E-07	0.	0.	1.36E-04	4.23E-06	7.31E-05	2.23E-05 2.27E-04
84	2.40 0.	3.28E-05	0.	1.64E-05	2.85E-08	0.	0.	1.37E-04	4.43E-06	7.56E-05	2.36E-05 2.36E-04
85	2.30 0.	1.56E-04	0.	0.	0.	0.	0.	1.38E-04	4.63E-06	7.81E-05	2.49E-05 3.58E-04
86	2.20 0.	3.22E-04	0.	0.	0.	0.	0.	1.39E-04	4.83E-06	8.06E-05	2.62E-05 5.28E-04
87	2.10 0.	4.75E-04	0.	0.	0.	0.	0.	1.40E-04	5.03E-06	8.31E-05	2.75E-05 6.92E-04
88	2.00 0.	7.57E-04	0.	0.	0.	0.	0.	1.41E-04	5.23E-06	8.56E-05	2.88E-05 9.84E-04
89	1.90 0.	1.55E-03	0.	0.	0.	0.	0.	1.42E-04	5.43E-06	8.81E-05	3.01E-05 1.79E-03
90	1.80 0.	1.27E-03	0.	0.	0.	0.	0.	1.43E-04	5.63E-06	9.06E-05	3.14E-05 1.79E-03
91	1.70 0.	1.53E-03	0.	0.	0.	0.	0.	1.44E-04	5.83E-06	9.31E-05	3.27E-05 1.53E-03
92	1.60 0.	1.07E-03	0.	0.	0.	0.	0.	1.45E-04	6.03E-06	9.56E-05	3.40E-05 1.81E-03
93	1.50 0.	1.32E-03	0.	0.	0.	0.	0.	1.46E-04	6.23E-06	9.81E-05	3.53E-05 1.35E-03
94	1.40 0.	1.41E-03	0.	0.	0.	0.	0.	1.47E-04	6.43E-06	1.00E-04	3.66E-05 1.69E-03
95	1.30 0.	1.03E-03	0.	0.	0.	0.	0.	1.48E-04	6.63E-06	1.02E-04	3.79E-05 1.27E-03
96	1.20 0.	1.04E-03	0.	0.	0.	0.	0.	1.49E-04	6.83E-06	1.04E-04	3.92E-05 1.30E-03
97	1.10 0.	8.52E-04	0.	0.	0.	0.	0.	1.50E-04	7.03E-06	1.06E-04	4.05E-05 1.26E-03
98	1.00 0.	5.36E-04	0.	0.	0.	0.	0.	1.51E-04	7.23E-06	1.08E-04	4.18E-05 1.27E-03
99	0.90 0.	5.36E-04	0.	0.	0.	0.	0.	1.52E-04	7.43E-06	1.10E-04	4.31E-05 1.27E-03
100	0.80 0.	2.94E-04	0.	0.	0.	0.	0.	1.53E-04	7.63E-06	1.12E-04	4.44E-05 9.99E-04
101	0.70 0.	7.84E-05	0.	0.	0.	0.	0.	1.54E-04	7.83E-06	1.14E-04	4.57E-05 9.37E-04
102	0.60 0.	4.32E-06	0.	0.	0.	0.	0.	1.55E-04	8.03E-06	1.16E-04	4.70E-05 9.59E-04

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		9000.		DENSITY (GM/CC)		1.293E-05 (10.0E-03 NORMAL)		0- FREE-FREE		H		0		TOTAL AIR	
PHOTON 02 S-R		02 S-R		NO		NO		2		P.E.		P.E.		P.E.	
ENERGY BANDS		CONT.		BETA		BAMMA		PHOTO-DET (IONS)		P.E.		P.E.		P.E.	
E.V.		NO. 1		NO		NO		NO		NO		NO		NO	
1	10.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2	10.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3	10.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4	10.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5	10.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6	10.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7	10.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8	10.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9	9.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10	9.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	9.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12	9.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13	9.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14	9.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15	9.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16	9.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17	9.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18	9.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19	8.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20	8.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	8.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22	8.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23	8.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24	8.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25	8.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26	8.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27	8.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28	8.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29	7.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30	7.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	7.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32	7.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33	7.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34	7.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35	7.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36	7.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37	7.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38	7.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39	6.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40	6.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	6.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42	6.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43	6.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44	6.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45	6.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46	6.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47	6.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48	6.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49	5.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50	5.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	5.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY E.V.	PHOTON 02 S-R BANDS	02 S-R CONT.	N2 8-H NO. 1	TEMPERATURE (DEGREES K)		NO BETA	NO GAMMA	DENSITY (GM/CC)		NO 2	O- PHOTO-DET (IONS)	FREE-FREE P.E.		TOTAL AIR P.E.	
				0000.	1.2932-86 (18.35-84 NORMAL)										
1	10.70 0.	0.	8.08E-06	0.	0.	0.	0.	2.11E-07	7.48E-10	1.17E-06	3.30E-07	9.72E-06	0.	0.	0.
2	15.60 0.	0.	6.85E-06	0.	0.	0.	0.	2.11E-07	7.48E-10	1.17E-06	3.30E-07	9.72E-06	0.	0.	0.
3	10.50 0.	0.	6.85E-06	0.	0.	0.	0.	2.11E-07	7.48E-10	1.17E-06	3.30E-07	9.72E-06	0.	0.	0.
4	10.40 0.	0.	5.89E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
5	10.30 0.	0.	4.78E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
6	10.20 0.	0.	4.78E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
7	10.10 0.	0.	4.23E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
8	10.00 0.	0.	3.86E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
9	9.90 0.	0.	3.46E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
10	9.80 0.	0.	2.98E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
11	9.70 0.	0.	2.52E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
12	9.60 0.	0.	2.08E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
13	9.50 0.	0.	1.59E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
14	9.40 0.	0.	1.91E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
15	9.30 0.	0.	2.27E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
16	9.20 0.	0.	3.62E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
17	9.10 0.	0.	3.14E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
18	9.00 0.	0.	3.68E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
19	8.90 0.	0.	4.23E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
20	8.80 0.	0.	4.32E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
21	8.70 0.	0.	4.23E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
22	8.60 0.	0.	4.07E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
23	8.50 0.	0.	3.96E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
24	8.40 0.	0.	3.90E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
25	8.30 0.	0.	3.84E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
26	8.20 0.	0.	3.74E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
27	8.10 0.	0.	3.62E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
28	8.00 0.	0.	3.51E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
29	7.90 0.	0.	3.39E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
30	7.80 0.	0.	3.25E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
31	7.70 0.	0.	3.12E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
32	7.60 0.	0.	2.97E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
33	7.50 0.	0.	2.81E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
34	7.40 0.	0.	2.62E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
35	7.30 0.	0.	2.53E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
36	7.20 0.	0.	2.37E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
37	7.10 0.	0.	2.21E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
38	7.00 0.	0.	2.05E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
39	6.90 0.	0.	1.89E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
40	6.80 0.	0.	1.73E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
41	6.70 0.	0.	1.57E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
42	6.60 0.	0.	1.41E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
43	6.50 0.	0.	1.25E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
44	6.40 0.	0.	1.09E-06	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
45	6.30 0.	0.	9.31E-07	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
46	6.20 0.	0.	7.63E-07	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
47	6.10 0.	0.	5.95E-07	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
48	6.00 0.	0.	4.27E-07	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
49	5.90 0.	0.	2.59E-07	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
50	5.80 0.	0.	9.31E-08	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.
51	5.70 0.	0.	1.51E-09	0.	0.	0.	0.	2.12E-07	8.00E-10	1.19E-06	3.50E-07	7.94E-06	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R ENERGY BANDS E-V.	02 S-R CONT.	H2 0-M NO. 1	TEMPERATURE (DEGREES K)		NO BETA	AO GAMMA	DENSITY (GM/CC) 1.293E-07 (10.0E-05 NORMAL)		O- P4078-007 (LINES)	M P.S.	O P.S.	TOTAL AIR
			9000.				1.293E-07 (10.0E-05 NORMAL)					
1	10.70 0.	0.	6.99E-04	0.	0.	0.	0.	0.	0.00E-09	6.79E-11	1.00E-07	2.37E-04
2	10.60 0.	0.	5.92E-04	0.	0.	0.	0.	0.	0.10E-09	6.09E-11	1.10E-07	2.37E-04
3	10.50 0.	0.	5.73E-04	0.	0.	0.	0.	0.	0.11E-09	7.10E-11	1.11E-07	1.97E-07
4	10.40 0.	0.	5.10E-04	0.	0.	0.	0.	0.	0.11E-09	7.31E-11	1.11E-07	2.37E-04
5	10.30 0.	0.	4.14E-04	0.	0.	0.	0.	0.	0.12E-09	7.74E-11	1.11E-07	1.02E-07
6	10.20 0.	0.	4.07E-04	0.	0.	0.	0.	0.	0.13E-09	7.74E-11	1.11E-07	2.37E-04
7	10.10 0.	0.	3.66E-04	0.	0.	0.	0.	0.	0.14E-09	7.74E-11	1.11E-07	1.70E-07
8	10.00 0.	0.	2.92E-04	0.	0.	0.	0.	0.	0.15E-09	8.22E-11	1.12E-07	2.17E-04
9	9.90 0.	0.	2.94E-04	0.	0.	0.	0.	0.	0.16E-09	8.47E-11	1.12E-07	2.17E-04
10	9.80 0.	0.	2.98E-04	0.	0.	0.	0.	0.	0.17E-09	8.73E-11	1.12E-07	2.36E-04
11	9.70 0.	0.	2.04E-04	0.	0.	0.	0.	0.	0.18E-09	9.01E-11	1.13E-07	2.36E-04
12	9.60 0.	0.	1.10E-04	0.	0.	0.	0.	0.	0.19E-09	9.29E-11	1.13E-07	2.36E-04
13	9.50 0.	0.	1.49E-04	0.	0.	0.	0.	0.	0.20E-09	9.59E-11	1.13E-07	2.36E-04
14	9.40 0.	0.	1.71E-04	0.	0.	0.	0.	0.	0.21E-09	9.90E-11	1.13E-07	2.36E-04
15	9.30 0.	0.	2.03E-04	0.	0.	0.	0.	0.	0.22E-09	1.02E-10	1.13E-07	2.36E-04
16	9.20 0.	0.	2.35E-04	0.	0.	0.	0.	0.	0.23E-09	1.05E-10	1.13E-07	2.36E-04
17	9.10 0.	0.	2.91E-04	0.	0.	0.	0.	0.	0.24E-09	1.08E-10	1.13E-07	2.36E-04
18	9.00 0.	0.	3.05E-04	0.	0.	0.	0.	0.	0.25E-09	1.11E-10	1.13E-07	2.36E-04
19	8.90 0.	0.	3.09E-04	0.	0.	0.	0.	0.	0.26E-09	1.14E-10	1.13E-07	2.36E-04
20	8.80 0.	0.	3.72E-04	0.	0.	0.	0.	0.	0.27E-09	1.17E-10	1.13E-07	2.36E-04
21	8.70 0.	0.	3.74E-04	0.	0.	0.	0.	0.	0.28E-09	1.20E-10	1.13E-07	2.36E-04
22	8.60 0.	0.	3.95E-04	0.	0.	0.	0.	0.	0.29E-09	1.23E-10	1.13E-07	2.36E-04
23	8.50 0.	0.	3.55E-04	0.	0.	0.	0.	0.	0.30E-09	1.26E-10	1.13E-07	2.36E-04
24	8.40 0.	0.	3.55E-04	0.	0.	0.	0.	0.	0.31E-09	1.29E-10	1.13E-07	2.36E-04
25	8.30 0.	0.	3.44E-04	0.	0.	0.	0.	0.	0.32E-09	1.32E-10	1.13E-07	2.36E-04
26	8.20 0.	0.	3.52E-04	0.	0.	0.	0.	0.	0.33E-09	1.35E-10	1.13E-07	2.36E-04
27	8.10 0.	0.	3.25E-04	0.	0.	0.	0.	0.	0.34E-09	1.38E-10	1.13E-07	2.36E-04
28	8.00 0.	0.	3.14E-04	0.	0.	0.	0.	0.	0.35E-09	1.41E-10	1.13E-07	2.36E-04
29	7.90 0.	0.	3.03E-04	0.	0.	0.	0.	0.	0.36E-09	1.44E-10	1.13E-07	2.36E-04
30	7.80 0.	0.	2.91E-04	0.	0.	0.	0.	0.	0.37E-09	1.47E-10	1.13E-07	2.36E-04
31	7.70 0.	0.	2.74E-04	0.	0.	0.	0.	0.	0.38E-09	1.50E-10	1.13E-07	2.36E-04
32	7.60 0.	0.	2.64E-04	0.	0.	0.	0.	0.	0.39E-09	1.53E-10	1.13E-07	2.36E-04
33	7.50 0.	0.	2.52E-04	0.	0.	0.	0.	0.	0.40E-09	1.56E-10	1.13E-07	2.36E-04
34	7.40 0.	0.	2.39E-04	0.	0.	0.	0.	0.	0.41E-09	1.59E-10	1.13E-07	2.36E-04
35	7.30 0.	0.	2.27E-04	0.	0.	0.	0.	0.	0.42E-09	1.62E-10	1.13E-07	2.36E-04
36	7.20 0.	0.	2.13E-04	0.	0.	0.	0.	0.	0.43E-09	1.65E-10	1.13E-07	2.36E-04
37	7.10 0.	0.	1.90E-04	0.	0.	0.	0.	0.	0.44E-09	1.68E-10	1.13E-07	2.36E-04
38	7.00 2.20E-13	0.	1.80E-04	0.	0.	0.	0.	0.	0.45E-09	1.71E-10	1.13E-07	2.36E-04
39	6.90 4.44E-13	0.	1.69E-04	0.	0.	0.	0.	0.	0.46E-09	1.74E-10	1.13E-07	2.36E-04
40	6.80 3.19E-13	0.	1.58E-04	0.	0.	0.	0.	0.	0.47E-09	1.77E-10	1.13E-07	2.36E-04
41	6.70 2.35E-13	0.	1.47E-04	0.	0.	0.	0.	0.	0.48E-09	1.80E-10	1.13E-07	2.36E-04
42	6.60 1.57E-13	0.	1.36E-04	0.	0.	0.	0.	0.	0.49E-09	1.83E-10	1.13E-07	2.36E-04
43	6.50 7.51E-14	0.	1.25E-04	0.	0.	0.	0.	0.	0.50E-09	1.86E-10	1.13E-07	2.36E-04
44	6.40 1.04E-13	0.	1.14E-04	0.	0.	0.	0.	0.	0.51E-09	1.89E-10	1.13E-07	2.36E-04
45	6.30 2.15E-13	0.	1.03E-04	0.	0.	0.	0.	0.	0.52E-09	1.92E-10	1.13E-07	2.36E-04
46	6.20 6.20E-13	0.	9.20E-05	0.	0.	0.	0.	0.	0.53E-09	1.95E-10	1.13E-07	2.36E-04
47	6.10 2.44E-12	0.	8.09E-05	0.	0.	0.	0.	0.	0.54E-09	1.98E-10	1.13E-07	2.36E-04
48	6.00 6.33E-12	0.	6.98E-05	0.	0.	0.	0.	0.	0.55E-09	2.01E-10	1.13E-07	2.36E-04
49	5.90 1.00E-11	0.	5.87E-05	0.	0.	0.	0.	0.	0.56E-09	2.04E-10	1.13E-07	2.36E-04
50	5.80 1.49E-11	0.	4.76E-05	0.	0.	0.	0.	0.	0.57E-09	2.07E-10	1.13E-07	2.36E-04
51	5.70 1.71E-11	0.	3.65E-05	0.	0.	0.	0.	0.	0.58E-09	2.10E-10	1.13E-07	2.36E-04

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-07 (10.0E-05 NORMAL)		TOTAL AIR	
ENERGY BANDS	1ST POS.	2ND POS.	1ST WED.	2ND	BETA	NO	NO	PHOTO-DET (IONS)	P.E.
52	5.60	2.18E-11	0.	0.	0.64E-11	6.81E-10	0.	0.	0.
53	5.50	2.13E-11	0.	0.	1.10E-10	6.83E-10	0.	0.	0.
54	5.40	2.28E-11	0.	0.	9.94E-11	4.24E-10	0.	0.	0.
55	5.30	2.11E-11	0.	0.	1.02E-10	4.42E-10	0.	0.	0.
56	5.20	1.47E-11	0.	0.	1.05E-10	3.59E-10	0.	0.	0.
57	5.10	1.36E-11	0.	0.	1.82E-10	4.94E-10	0.	0.	0.
58	5.00	9.95E-12	0.	0.	8.16E-11	4.24E-10	0.	0.	0.
59	4.90	8.25E-12	0.	0.	9.44E-11	4.16E-10	0.	0.	0.
60	4.80	6.83E-12	0.	0.	9.32E-11	3.17E-10	0.	0.	0.
61	4.70	6.03E-12	0.	0.	9.23E-11	2.98E-10	0.	0.	0.
62	4.60	1.03E-11	0.	0.	7.86E-11	2.08E-10	0.	0.	0.
63	4.50	1.01E-11	0.	0.	7.64E-11	1.56E-10	0.	0.	0.
64	4.40	1.01E-11	0.	0.	6.83E-11	1.48E-10	0.	0.	0.
65	4.30	8.91E-12	0.	0.	6.82E-11	1.48E-10	0.	0.	0.
66	4.20	7.92E-12	0.	0.	6.48E-11	1.39E-10	0.	0.	0.
67	4.10	7.06E-12	0.	0.	6.40E-11	1.35E-10	0.	0.	0.
68	4.00	6.45E-12	0.	0.	6.18E-11	1.35E-10	0.	0.	0.
69	3.90	5.17E-12	0.	0.	5.59E-11	1.29E-10	0.	0.	0.
70	3.80	5.17E-12	0.	0.	5.59E-11	1.29E-10	0.	0.	0.
71	3.70	4.10E-12	0.	0.	5.14E-11	1.14E-10	0.	0.	0.
72	3.60	3.58E-12	0.	0.	4.71E-11	1.03E-10	0.	0.	0.
73	3.50	3.14E-12	0.	0.	4.34E-11	9.33E-11	0.	0.	0.
74	3.40	2.68E-12	0.	0.	4.02E-11	8.45E-11	0.	0.	0.
75	3.30	2.04E-12	0.	0.	3.71E-11	7.71E-11	0.	0.	0.
76	3.20	1.65E-12	0.	0.	3.40E-11	6.98E-11	0.	0.	0.
77	3.10	1.48E-12	0.	0.	3.10E-11	6.08E-11	0.	0.	0.
78	3.00	1.23E-12	0.	0.	2.79E-11	5.21E-11	0.	0.	0.
79	2.90	9.52E-13	0.	0.	2.48E-11	4.24E-11	0.	0.	0.
80	2.80	9.35E-13	0.	0.	2.17E-11	3.35E-11	0.	0.	0.
81	2.70	7.38E-13	0.	0.	1.86E-11	2.42E-11	0.	0.	0.
82	2.60	7.14E-13	0.	0.	1.55E-11	1.51E-11	0.	0.	0.
83	2.50	1.44E-14	0.	0.	1.24E-11	8.65E-12	0.	0.	0.
84	2.40	0.	0.	0.	1.03E-11	7.14E-12	0.	0.	0.
85	2.30	0.	0.	0.	8.65E-12	5.95E-12	0.	0.	0.
86	2.20	0.	0.	0.	7.14E-12	4.71E-12	0.	0.	0.
87	2.10	0.	0.	0.	5.95E-12	3.71E-12	0.	0.	0.
88	2.00	0.	0.	0.	4.71E-12	2.79E-12	0.	0.	0.
89	1.90	0.	0.	0.	3.71E-12	2.04E-12	0.	0.	0.
90	1.80	0.	0.	0.	2.79E-12	1.51E-12	0.	0.	0.
91	1.70	0.	0.	0.	2.04E-12	1.03E-12	0.	0.	0.
92	1.60	0.	0.	0.	1.51E-12	7.14E-13	0.	0.	0.
93	1.50	0.	0.	0.	1.03E-12	5.14E-13	0.	0.	0.
94	1.40	0.	0.	0.	7.14E-13	3.71E-13	0.	0.	0.
95	1.30	0.	0.	0.	5.14E-13	2.79E-13	0.	0.	0.
96	1.20	0.	0.	0.	3.71E-13	2.04E-13	0.	0.	0.
97	1.10	0.	0.	0.	2.79E-13	1.51E-13	0.	0.	0.
98	1.00	0.	0.	0.	2.04E-13	1.03E-13	0.	0.	0.
99	0.90	0.	0.	0.	1.51E-13	7.14E-14	0.	0.	0.
100	0.80	0.	0.	0.	1.03E-13	5.14E-14	0.	0.	0.
101	0.70	0.	0.	0.	7.14E-14	3.71E-14	0.	0.	0.
102	0.60	0.	0.	0.	5.14E-14	2.79E-14	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		9000.		DENSITY (GM/CC)		1.293E-08 (16.0E-06 NORMAL)		NO		0-		FREE-FREE		H		0		TOTAL AIR	
PARTION 02 S-R		O2 S-R		NO		NO		NO		2		PHOTO-DET (IONS)		P.E.		P.E.			
ENERGY BANDS		CONT.		NO		NO		NO		NO		NO		NO		NO			
E.V.																			
1	10.73	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2	10.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3	10.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4	10.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5	10.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6	10.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7	10.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8	10.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9	9.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10	9.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	9.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12	9.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13	9.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14	9.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15	9.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16	9.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17	9.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18	9.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19	8.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20	8.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	8.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22	8.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23	8.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24	8.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25	8.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26	8.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27	8.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28	8.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29	7.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30	7.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	7.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32	7.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33	7.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34	7.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35	7.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36	7.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37	7.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38	7.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39	6.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40	6.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	6.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42	6.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43	6.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44	6.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45	6.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46	6.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47	6.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48	6.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49	5.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50	5.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	5.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-6 ENERGY BA-25	1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	NO GAMMA	NO VIB-RNT	NO 2	PHOTO-DET (IONS)	M P.E.	O P.E.	TOTAL AIR	
52	5.60	1.47E-13	0.	0.	6.39E-13	4.51E-12	0.	1.54E-10	3.70E-11	2.41E-09	2.49E-09	5.20E-09
53	5.50	1.51E-13	0.	0.	7.08E-13	4.0E-12	0.	1.53E-10	3.97E-11	2.45E-09	2.74E-09	5.17E-09
54	5.40	1.56E-13	0.	0.	6.59E-13	4.0E-12	0.	1.53E-10	4.20E-11	2.45E-09	2.78E-09	5.45E-09
55	5.30	1.48E-13	0.	0.	6.78E-13	4.0E-12	0.	1.50E-10	4.40E-11	2.45E-09	2.80E-09	5.55E-09
56	5.20	1.43E-13	0.	0.	6.99E-13	3.9E-12	0.	1.57E-10	4.70E-11	2.54E-09	2.90E-09	5.65E-09
57	5.10	1.50E-13	0.	0.	6.75E-13	3.9E-12	0.	1.59E-10	4.90E-11	2.60E-09	2.97E-09	5.79E-09
58	5.00	1.49E-13	0.	0.	6.97E-13	3.9E-12	0.	1.60E-10	5.20E-11	2.67E-09	3.04E-09	5.93E-09
59	4.90	1.54E-13	0.	0.	6.26E-13	3.9E-12	0.	1.61E-10	5.50E-11	2.73E-09	3.11E-09	6.07E-09
60	4.80	1.60E-13	0.	0.	6.55E-13	3.9E-12	0.	1.65E-10	5.90E-11	2.80E-09	3.18E-09	6.22E-09
61	4.70	1.68E-13	0.	0.	6.10E-13	3.9E-12	0.	1.68E-10	6.30E-11	2.86E-09	3.25E-09	6.37E-09
62	4.60	1.78E-13	0.	0.	6.12E-13	3.9E-12	0.	1.65E-10	6.80E-11	2.92E-09	3.32E-09	6.54E-09
63	4.50	1.88E-13	0.	0.	5.23E-13	3.9E-12	0.	1.67E-10	7.20E-11	3.07E-09	3.42E-09	6.73E-09
64	4.40	1.90E-13	0.	0.	5.06E-13	3.9E-12	0.	1.68E-10	7.70E-11	3.10E-09	3.50E-09	6.92E-09
65	4.30	2.03E-13	0.	0.	4.53E-13	3.9E-12	0.	1.72E-10	8.30E-11	3.24E-09	3.57E-09	7.01E-09
66	4.20	2.14E-13	0.	0.	4.05E-13	3.9E-12	0.	1.71E-10	8.90E-11	3.39E-09	3.66E-09	7.12E-09
67	4.10	2.25E-13	0.	0.	4.24E-13	3.9E-12	0.	1.71E-10	9.40E-11	3.45E-09	3.74E-09	7.26E-09
68	4.00	2.30E-13	0.	0.	3.90E-13	3.9E-12	0.	1.72E-10	1.00E-10	3.50E-09	3.83E-09	7.41E-09
69	3.90	2.40E-13	0.	0.	3.28E-13	3.9E-12	0.	1.72E-10	1.06E-10	3.55E-09	3.91E-09	7.56E-09
70	3.80	2.52E-13	0.	0.	3.51E-12	2.22E-11	0.	1.73E-10	1.12E-10	3.60E-09	4.00E-09	7.72E-09
71	3.70	2.63E-13	0.	0.	4.76E-12	4.74E-11	0.	1.73E-10	1.18E-10	3.65E-09	4.09E-09	7.89E-09
72	3.60	2.75E-13	0.	0.	2.33E-12	3.08E-10	0.	1.73E-10	1.24E-10	3.70E-09	4.18E-09	8.06E-09
73	3.50	2.81E-13	0.	0.	3.79E-12	1.03E-09	0.	1.73E-10	1.30E-10	3.75E-09	4.27E-09	8.23E-09
74	3.40	2.90E-13	0.	0.	1.76E-12	6.64E-11	0.	1.73E-10	1.36E-10	3.80E-09	4.36E-09	8.40E-09
75	3.30	3.01E-13	0.	0.	1.98E-12	4.02E-11	0.	1.73E-10	1.42E-10	3.85E-09	4.45E-09	8.57E-09
76	3.20	3.15E-13	0.	0.	1.08E-12	1.12E-10	0.	1.73E-10	1.48E-10	3.90E-09	4.54E-09	8.74E-09
77	3.10	3.30E-13	0.	0.	6.23E-13	1.04E-10	0.	1.73E-10	1.54E-10	3.95E-09	4.63E-09	8.91E-09
78	3.00	3.45E-13	0.	0.	4.68E-13	4.05E-10	0.	1.73E-10	1.60E-10	4.00E-09	4.72E-09	9.08E-09
79	2.90	3.60E-13	0.	0.	2.66E-13	2.80E-10	0.	1.73E-10	1.66E-10	4.05E-09	4.81E-09	9.25E-09
80	2.80	3.75E-13	0.	0.	1.24E-13	9.14E-11	0.	1.73E-10	1.72E-10	4.10E-09	4.90E-09	9.42E-09
81	2.70	3.90E-13	0.	0.	6.67E-14	1.98E-10	0.	1.73E-10	1.78E-10	4.15E-09	4.99E-09	9.59E-09
82	2.60	4.05E-13	0.	0.	2.89E-14	1.0E-11	0.	1.73E-10	1.84E-10	4.20E-09	5.08E-09	9.76E-09
83	2.50	4.20E-13	0.	0.	3.78E-15	1.34E-11	0.	1.73E-10	1.90E-10	4.25E-09	5.17E-09	9.93E-09
84	2.40	4.35E-13	0.	0.	1.59E-11	1.59E-11	0.	1.73E-10	1.96E-10	4.30E-09	5.26E-09	1.01E-08
85	2.30	4.50E-13	0.	0.	1.11E-12	0.	0.	1.73E-10	2.02E-10	4.35E-09	5.35E-09	1.03E-08
86	2.20	4.65E-13	0.	0.	3.37E-12	0.	0.	1.73E-10	2.08E-10	4.40E-09	5.44E-09	1.05E-08
87	2.10	4.80E-13	0.	0.	0.	0.	0.	1.73E-10	2.14E-10	4.45E-09	5.53E-09	1.07E-08
88	2.00	4.95E-13	0.	0.	5.34E-12	0.	0.	1.73E-10	2.20E-10	4.50E-09	5.62E-09	1.09E-08
89	1.90	5.10E-13	0.	0.	1.10E-11	0.	0.	1.73E-10	2.26E-10	4.55E-09	5.71E-09	1.11E-08
90	1.80	5.25E-13	0.	0.	9.00E-12	0.	0.	1.73E-10	2.32E-10	4.60E-09	5.80E-09	1.13E-08
91	1.70	5.40E-13	0.	0.	1.09E-11	0.	0.	1.73E-10	2.38E-10	4.65E-09	5.89E-09	1.15E-08
92	1.60	5.55E-13	0.	0.	7.57E-12	0.	0.	1.73E-10	2.44E-10	4.70E-09	5.98E-09	1.17E-08
93	1.50	5.70E-13	0.	0.	9.37E-12	0.	0.	1.73E-10	2.50E-10	4.75E-09	6.07E-09	1.19E-08
94	1.40	5.85E-13	0.	0.	1.00E-11	0.	0.	1.73E-10	2.56E-10	4.80E-09	6.16E-09	1.21E-08
95	1.30	6.00E-13	0.	0.	7.32E-12	0.	0.	1.73E-10	2.62E-10	4.85E-09	6.25E-09	1.23E-08
96	1.20	6.15E-13	0.	0.	7.52E-12	0.	0.	1.73E-10	2.68E-10	4.90E-09	6.34E-09	1.25E-08
97	1.10	6.30E-13	0.	0.	6.08E-12	0.	0.	1.73E-10	2.74E-10	4.95E-09	6.43E-09	1.27E-08
98	1.00	6.45E-13	0.	0.	5.64E-12	0.	0.	1.73E-10	2.80E-10	5.00E-09	6.52E-09	1.29E-08
99	0.90	6.60E-13	0.	0.	4.54E-12	0.	0.	1.73E-10	2.86E-10	5.05E-09	6.61E-09	1.31E-08
100	0.80	6.75E-13	0.	0.	2.10E-12	0.	0.	1.73E-10	2.92E-10	5.10E-09	6.70E-09	1.33E-08
101	0.70	6.90E-13	0.	0.	5.60E-12	0.	0.	1.73E-10	2.98E-10	5.15E-09	6.79E-09	1.35E-08
102	0.60	7.05E-13	0.	0.	3.07E-12	0.	0.	1.73E-10	3.04E-10	5.20E-09	6.88E-09	1.37E-08

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

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ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON BANDS		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-09 (10.0E-07 NORMAL)		0		FREE-FREE		N		TOTAL AIR		
1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	
1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	
52	5.60	4.66E-16	0.	0.	0.	1.01E-15	1.29E-14	0.	0.	1.94E-12	1.93E-12	1.21E-10	1.51E-10	2.74E-10	2.74E-10	
53	5.50	4.77E-16	0.	0.	0.	2.35E-15	1.29E-14	0.	0.	1.97E-12	2.04E-12	1.22E-10	1.54E-10	2.80E-10	2.80E-10	
54	5.40	4.93E-16	0.	0.	0.	1.86E-15	7.99E-15	0.	0.	1.98E-12	2.15E-12	1.24E-10	1.57E-10	2.85E-10	2.85E-10	
55	5.30	4.68E-16	0.	0.	0.	1.82E-15	1.20E-14	0.	0.	1.99E-12	2.28E-12	1.26E-10	1.60E-10	2.90E-10	2.90E-10	
56	5.20	3.27E-16	0.	0.	0.	1.98E-15	6.73E-15	0.	0.	2.02E-12	2.41E-12	1.28E-10	1.63E-10	2.95E-10	2.95E-10	
57	5.10	3.01E-16	0.	0.	0.	1.91E-15	9.24E-15	0.	0.	2.02E-12	2.55E-12	1.31E-10	1.67E-10	3.03E-10	3.03E-10	
58	5.00	2.20E-16	0.	0.	0.	1.68E-15	7.99E-15	0.	0.	2.04E-12	2.71E-12	1.34E-10	1.71E-10	3.10E-10	3.10E-10	
59	4.90	1.83E-16	0.	0.	0.	1.77E-15	7.79E-15	0.	0.	2.04E-12	2.78E-12	1.36E-10	1.75E-10	3.18E-10	3.18E-10	
60	4.80	1.63E-16	0.	0.	0.	1.82E-15	7.11E-15	0.	0.	2.07E-12	3.07E-12	1.41E-10	1.79E-10	3.25E-10	3.25E-10	
61	4.70	1.96E-16	0.	0.	0.	1.79E-15	9.93E-15	0.	0.	2.09E-12	3.27E-12	1.45E-10	1.83E-10	3.34E-10	3.34E-10	
62	4.60	2.27E-16	0.	0.	0.	1.73E-15	5.97E-15	0.	0.	2.11E-12	3.49E-12	1.49E-10	1.88E-10	3.43E-10	3.43E-10	
63	4.50	2.24E-16	0.	0.	0.	1.48E-15	3.90E-15	0.	0.	2.12E-12	3.73E-12	1.54E-10	1.92E-10	3.52E-10	3.52E-10	
64	4.40	2.23E-16	0.	0.	0.	1.43E-15	2.91E-15	0.	0.	2.14E-12	3.99E-12	1.60E-10	1.96E-10	3.62E-10	3.62E-10	
65	4.30	1.97E-16	0.	0.	0.	1.29E-15	1.61E-15	0.	0.	2.14E-12	4.27E-12	1.65E-10	2.00E-10	3.72E-10	3.72E-10	
66	4.20	1.76E-16	0.	0.	0.	1.31E-15	1.31E-15	0.	0.	2.17E-12	4.59E-12	1.70E-10	2.04E-10	3.82E-10	3.82E-10	
67	4.10	1.58E-16	0.	0.	0.	1.28E-15	3.33E-16	0.	0.	2.18E-12	4.93E-12	1.75E-10	2.08E-10	3.92E-10	3.92E-10	
68	4.00	1.58E-16	0.	0.	0.	1.48E-15	2.54E-16	0.	0.	2.19E-12	5.31E-12	1.80E-10	2.12E-10	4.02E-10	4.02E-10	
69	3.90	1.58E-16	0.	0.	0.	1.48E-15	1.17E-16	0.	0.	2.19E-12	5.74E-12	1.85E-10	2.16E-10	4.12E-10	4.12E-10	
70	3.80	1.15E-16	0.	0.	0.	8.65E-15	9.79E-16	0.	0.	2.17E-12	6.20E-12	1.82E-10	2.11E-10	4.06E-10	4.06E-10	
71	3.70	9.27E-17	0.	0.	0.	1.21E-14	5.26E-13	0.	0.	2.14E-12	6.72E-12	1.77E-10	2.06E-10	3.99E-10	3.99E-10	
72	3.60	7.94E-17	0.	0.	0.	5.08E-15	3.43E-12	0.	0.	2.08E-12	7.30E-12	1.61E-10	1.91E-10	3.79E-10	3.79E-10	
73	3.50	6.97E-17	0.	0.	0.	4.46E-15	1.15E-11	0.	0.	1.83E-12	7.95E-12	1.15E-10	1.46E-10	3.26E-10	3.26E-10	
74	3.40	5.90E-17	0.	0.	0.	4.46E-15	7.40E-13	0.	0.	1.68E-12	8.68E-12	1.30E-10	1.63E-10	3.56E-10	3.56E-10	
75	3.30	4.53E-17	0.	0.	0.	4.95E-15	4.48E-12	0.	0.	1.66E-12	9.50E-12	1.49E-10	1.89E-10	3.95E-10	3.95E-10	
76	3.20	3.66E-17	0.	0.	0.	2.08E-15	1.24E-11	0.	0.	1.66E-12	1.04E-11	1.68E-10	2.05E-10	4.32E-10	4.32E-10	
77	3.10	3.20E-17	0.	0.	0.	2.08E-15	1.16E-12	0.	0.	1.66E-12	1.15E-11	1.75E-10	2.16E-10	4.61E-10	4.61E-10	
78	3.00	2.72E-17	0.	0.	0.	1.13E-15	4.51E-12	0.	0.	1.67E-12	1.26E-11	1.91E-10	2.32E-10	5.06E-10	5.06E-10	
79	2.90	2.11E-17	0.	0.	0.	6.71E-16	3.12E-12	0.	0.	1.67E-12	1.40E-11	2.04E-10	2.45E-10	5.49E-10	5.49E-10	
80	2.80	2.08E-17	0.	0.	0.	3.12E-16	2.33E-16	0.	0.	1.67E-12	1.56E-11	2.23E-10	2.73E-10	6.01E-10	6.01E-10	
81	2.70	1.19E-17	0.	0.	0.	1.43E-16	2.21E-12	0.	0.	1.67E-12	1.74E-11	2.41E-10	2.93E-10	6.53E-10	6.53E-10	
82	2.60	4.69E-18	0.	0.	0.	7.30E-17	2.04E-13	0.	0.	1.67E-12	1.95E-11	2.74E-10	3.35E-10	7.45E-10	7.45E-10	
83	2.50	3.20E-18	0.	0.	0.	9.52E-18	1.49E-13	0.	0.	1.67E-12	2.19E-11	3.13E-10	3.85E-10	8.35E-10	8.35E-10	
84	2.40	0.	0.	0.	0.	1.77E-13	5.32E-19	0.	0.	1.66E-12	2.48E-11	3.60E-10	4.45E-10	9.55E-10	9.55E-10	
85	2.30	0.	0.	0.	0.	5.89E-16	0.	0.	0.	1.65E-12	2.82E-11	4.09E-10	5.06E-10	1.07E-09	1.07E-09	
86	2.20	0.	0.	0.	0.	2.79E-15	0.	0.	0.	1.65E-12	3.23E-11	4.59E-10	5.69E-10	1.19E-09	1.19E-09	
87	2.10	0.	0.	0.	0.	5.78E-15	0.	0.	0.	1.65E-12	3.72E-11	5.15E-10	6.35E-10	1.33E-09	1.33E-09	
88	2.00	0.	0.	0.	0.	1.58E-14	0.	0.	0.	1.65E-12	4.31E-11	5.77E-10	7.05E-10	1.49E-09	1.49E-09	
89	1.90	0.	0.	0.	0.	2.78E-14	0.	0.	0.	1.65E-12	4.91E-11	6.45E-10	7.80E-10	1.67E-09	1.67E-09	
90	1.80	0.	0.	0.	0.	2.27E-14	0.	0.	0.	9.30E-13	5.93E-11	8.28E-10	1.01E-09	9.91E-09	9.91E-09	
91	1.70	0.	0.	0.	0.	2.75E-14	0.	0.	0.	8.04E-13	7.05E-11	9.49E-10	1.11E-09	1.15E-09	1.15E-09	
92	1.60	0.	0.	0.	0.	1.91E-14	0.	0.	0.	7.48E-13	8.47E-11	1.13E-09	1.30E-09	1.36E-09	1.36E-09	
93	1.50	0.	0.	0.	0.	2.36E-14	0.	0.	0.	3.40E-13	1.03E-10	1.38E-09	1.67E-09	1.75E-09	1.75E-09	
94	1.40	0.	0.	0.	0.	2.53E-14	0.	0.	0.	0.	1.27E-10	4.52E-10	1.10E-09	1.30E-09	1.36E-09	1.36E-09
95	1.30	0.	0.	0.	0.	1.85E-14	0.	0.	0.	0.	1.59E-10	6.76E-10	1.08E-09	1.29E-09	1.36E-09	1.36E-09
96	1.20	0.	0.	0.	0.	1.90E-14	0.	0.	0.	0.	2.43E-10	8.54E-10	1.03E-09	1.25E-09	1.32E-09	1.32E-09
97	1.10	0.	0.	0.	0.	1.53E-14	0.	0.	0.	0.	2.64E-10	1.00E-09	1.00E-09	1.22E-09	1.29E-09	1.29E-09
98	1.00	0.	0.	0.	0.	1.43E-14	0.	0.	0.	0.	3.53E-10	1.31E-09	1.00E-09	1.22E-09	1.29E-09	1.29E-09
99	0.90	0.	0.	0.	0.	1.15E-14	0.	0.	0.	0.	4.86E-10	1.51E-09	1.00E-09	1.22E-09	1.29E-09	1.29E-09
100	0.80	0.	0.	0.	0.	5.31E-15	0.	0.	0.	0.	6.96E-10	1.51E-09	1.00E-09	1.22E-09	1.29E-09	1.29E-09
101	0.70	0.	0.	0.	0.	1.41E-15	0.	0.	0.	0.	1.05E-09	1.49E-09	1.00E-09	1.22E-09	1.29E-09	1.29E-09
102	0.60	0.	0.	0.	0.	7.74E-17	0.	0.	0.	0.	1.69E-09	1.68E-09	1.00E-09	1.22E-09	1.29E-09	1.29E-09

TEMPERATURE (DEGREE K) 1000.
QUALITY (M/CC) 1.23E-1

ie2

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		10000.		DENSITY (GM/CC)		1.293E-02 (1.0E 01 NORMAL)		0		TOTAL AIR					
PHOTON 02 3-M	ENERGY BANDS	1ST POS.	2ND POS.	N2	BETA	N0	GAMMA	VIB-ROT	NO	2	PHOTO-DET (IONS)	N	P.E.	0	P.E.
52	5.60	9.32E-02	0	0	1.35E-01	9.33E-01	0	0	4.08E-01	6.10E-04	4.01E-03	1.87E-02	1.64E 00		
53	5.50	9.65E-02	0	0	1.40E-01	8.95E-01	0	0	4.08E-01	6.41E-04	4.06E-03	1.89E-02	1.67E 00		
54	5.40	1.01E-01	0	0	1.42E-01	8.55E-01	0	0	4.08E-01	6.81E-04	4.06E-03	1.11E-02	1.36E 00		
55	5.30	9.61E-02	0	0	1.40E-01	8.77E-01	0	0	4.08E-01	7.20E-04	5.13E-03	1.13E-02	1.64E 00		
56	5.20	6.69E-02	0	0	1.51E-01	8.21E-01	0	0	5.02E-01	7.63E-04	5.13E-03	1.15E-02	1.26E 00		
57	5.10	6.40E-02	0	0	1.47E-01	7.80E-01	0	0	5.04E-01	8.09E-04	5.24E-03	1.12E-02	1.44E 00		
58	5.00	4.72E-02	0	0	1.30E-01	6.16E-01	0	0	5.18E-01	8.59E-04	5.41E-03	1.21E-02	1.32E 00		
59	4.90	3.93E-02	0	0	1.30E-01	6.20E-01	0	0	5.14E-01	9.17E-04	5.56E-03	1.23E-02	1.33E 00		
60	4.80	3.93E-02	0	0	1.47E-01	5.70E-01	0	0	5.19E-01	9.71E-04	5.71E-03	1.26E-02	1.29E 00		
61	4.70	4.23E-02	0	0	1.40E-01	4.85E-01	0	0	5.23E-01	1.03E-03	5.86E-03	1.29E-02	1.21E 00		
62	4.60	4.97E-02	0	0	1.40E-01	4.51E-01	0	0	5.27E-01	1.10E-03	6.05E-03	1.32E-02	1.17E 00		
63	4.50	4.97E-02	0	1.57E-02	1.21E-01	3.23E-01	0	0	5.31E-01	1.10E-03	6.20E-03	1.35E-02	1.06E 00		
64	4.40	5.02E-02	0	5.42E-02	1.10E-01	2.36E-01	0	0	5.36E-01	1.26E-03	6.50E-03	1.39E-02	1.02E 00		
65	4.30	5.50E-02	0	1.59E-01	1.07E-01	1.35E-01	0	0	5.40E-01	1.35E-03	6.74E-03	1.42E-02	9.90E-01		
66	4.20	4.04E-02	0	5.98E-01	1.11E-01	1.04E-01	0	0	5.44E-01	1.45E-03	6.94E-03	1.45E-02	1.30E 00		
67	4.10	3.64E-02	0	1.77E-01	1.02E-01	1.27E-02	0	0	5.48E-01	1.56E-03	7.21E-03	1.46E-02	9.13E-01		
68	4.00	3.21E-02	0	3.97E-01	9.45E-02	2.10E-02	0	0	5.48E-01	1.65E-03	7.45E-03	2.51E-03	1.49E 00		
69	3.90	2.76E-02	0	3.49E-01	8.15E-02	9.60E-03	0	0	5.48E-01	1.82E-03	8.19E-03	2.59E-03	1.03E 00		
70	3.80	2.76E-02	0	4.77E-01	8.15E-02	9.60E-03	0	0	5.48E-01	1.95E-03	8.35E-03	2.67E-03	1.17E 00		
71	3.70	2.27E-02	0	6.30E-01	6.19E-03	6.60E-02	0	0	5.50E-01	2.13E-03	8.90E-03	3.80E-03	1.20E 00		
72	3.60	1.97E-02	0	3.37E-01	3.95E-02	7.24E-02	0	0	5.52E-01	2.31E-03	9.31E-03	3.37E-03	9.01E-01		
73	3.50	1.75E-02	0	5.17E-01	1.10E-01	5.21E-02	0	0	4.59E-01	2.52E-03	5.19E-03	3.70E-03	1.10E 00		
74	3.40	1.50E-02	0	2.48E-01	9.09E-03	5.74E-02	0	0	4.59E-01	2.75E-03	5.86E-03	4.22E-03	6.20E-01		
75	3.30	1.16E-02	0	2.83E-01	5.81E-02	4.25E-02	0	0	4.64E-01	3.16E-03	6.53E-03	4.64E-03	6.64E-01		
76	3.20	9.50E-03	0	1.41E-01	1.25E-01	4.35E-02	0	0	2.68E-01	3.16E-03	7.20E-03	5.12E-03	6.20E-01		
77	3.10	8.69E-03	0	1.82E-01	1.42E-02	3.80E-02	0	0	2.68E-01	3.43E-03	7.80E-03	5.59E-03	4.68E-01		
78	3.00	7.53E-03	0	6.95E-02	4.99E-02	3.41E-02	0	0	2.67E-01	4.61E-03	8.50E-03	6.54E-03	4.46E-01		
79	2.90	5.76E-03	0	4.14E-02	3.20E-02	2.34E-02	0	0	2.67E-01	4.44E-03	8.20E-03	6.52E-03	3.91E-01		
80	2.80	5.76E-03	0	1.99E-02	1.23E-02	1.44E-02	0	0	2.68E-01	4.90E-03	8.80E-03	7.82E-03	3.42E-01		
81	2.70	3.38E-03	0	6.33E-03	2.43E-02	6.95E-03	0	0	2.68E-01	5.51E-03	1.00E-02	8.56E-03	3.35E-01		
82	2.60	1.42E-03	0	4.55E-03	2.27E-03	2.74E-03	0	0	2.68E-01	6.15E-03	1.17E-02	9.12E-03	3.35E-01		
83	2.50	9.40E-05	0	5.71E-04	1.77E-03	6.00E-04	0	0	2.68E-01	6.86E-03	1.32E-02	1.15E-02	3.64E-01		
84	2.40	0	0	1.94E-03	1.04E-03	4.15E-05	0	0	2.68E-01	7.87E-03	1.52E-02	1.85E-03	3.80E-01		
85	2.30	0	0	1.44E-01	0	0	0	0	2.68E-01	8.95E-03	1.60E-02	4.61E-03	4.53E-01		
86	2.20	0	0	3.11E-01	0	0	0	0	2.68E-01	1.82E-02	1.18E-02	5.56E-03	6.04E-01		
87	2.10	0	0	4.27E-01	0	0	0	0	2.68E-01	1.10E-02	1.30E-02	6.51E-03	7.22E-01		
88	2.00	0	0	7.14E-01	0	0	0	0	2.68E-01	1.37E-02	1.57E-02	7.47E-03	1.81E 00		
89	1.90	0	0	1.33E 00	0	0	0	0	2.68E-01	1.60E-02	1.74E-02	8.44E-03	1.62E 00		
90	1.80	0	0	1.08E 00	0	0	0	0	2.68E-01	1.80E-02	2.05E-02	1.81E-02	1.37E 00		
91	1.70	0	0	1.31E 00	0	0	0	0	2.68E-01	2.25E-02	2.40E-02	1.21E-02	1.59E 00		
92	1.60	0	0	9.16E-01	0	0	0	0	1.07E-01	2.68E-02	2.84E-02	1.41E-02	1.17E 00		
93	1.50	0	0	1.12E 00	0	0	0	0	0.90E-02	3.27E-02	3.57E-02	1.69E-02	1.29E 00		
94	1.40	0	0	1.14E 00	0	0	0	0	0	5.05E-02	4.33E-02	1.96E-02	1.20E 00		
95	1.30	0	0	8.74E-01	0	0	0	0	0	5.05E-02	5.30E-02	2.53E-02	1.00E 00		
96	1.20	0	0	8.74E-01	0	0	0	0	0	6.44E-02	4.90E-02	2.34E-02	1.02E 00		
97	1.10	0	0	7.35E-01	0	0	0	0	0	8.43E-02	4.15E-02	2.93E-02	9.09E-01		
98	1.00	0	0	6.81E-01	0	0	0	0	0	1.12E-01	7.41E-02	3.22E-02	8.90E-01		
99	0.90	0	0	5.31E-01	0	0	0	0	0	1.52E-01	8.35E-02	3.79E-02	8.27E-01		
100	0.80	0	0	2.57E-01	0	0	0	0	0	2.22E-01	9.59E-02	4.56E-02	6.21E-01		
101	0.70	0	0	4.70E-02	0	0	0	0	0	3.36E-01	1.00E-01	4.84E-02	5.50E-01		
102	0.60	0	0	4.69E-03	0	0	0	0	0	5.34E-01	1.10E-01	5.40E-02	7.10E-01		

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.2035-03 (10.05-01 NORMAL)		0- FREQ-FREE		0		TOTAL AIR	
PHOTON 02 S-R		02 E-H		NO		2		P.E.		P.E.	
ENERGY BANDS		CONT.		BETA		NO		P.E.		P.E.	
E.V.		NO. 1		NO		NO		P.E.		P.E.	
1	10.76 0.	0.	1.3 E 00	0.	0.	0.	1.31E-02	5.94E-04	9.11E-04	0.97E-04	1.42E-04
2	10.60 0.	0.	1.18E 00	0.	0.	0.	1.31E-02	5.72E-04	9.02E-04	0.94E-04	1.39E-04
3	10.50 0.	0.	1.15E 00	0.	0.	0.	1.32E-02	5.99E-04	9.42E-04	0.97E-04	1.37E-04
4	10.40 0.	0.	1.08E 00	0.	0.	0.	1.32E-02	6.04E-04	9.42E-04	0.94E-04	1.04E-04
5	10.30 0.	0.	0.95E-01	0.	0.	0.	1.32E-02	6.04E-04	9.42E-04	0.94E-04	0.78E-04
6	10.20 0.	0.	0.90E-01	0.	0.	0.	1.32E-02	6.07E-04	9.42E-04	0.94E-04	0.67E-04
7	10.10 0.	0.	7.71E-01	0.	0.	0.	1.32E-02	6.07E-04	9.42E-04	0.94E-04	7.00E-04
8	10.00 0.	0.	6.25E-01	0.	0.	0.	1.33E-02	6.07E-04	9.42E-04	0.94E-04	6.42E-04
9	9.90 0.	0.	6.34E-01	0.	0.	0.	1.33E-02	6.07E-04	9.42E-04	0.94E-04	6.42E-04
10	9.80 0.	0.	5.04E-01	0.	0.	0.	1.33E-02	6.07E-04	9.42E-04	0.94E-04	5.82E-04
11	9.70 0.	0.	4.54E-01	0.	0.	0.	1.33E-02	6.07E-04	9.42E-04	0.94E-04	4.71E-04
12	9.60 0.	0.	4.07E-01	0.	0.	0.	1.33E-02	6.07E-04	9.42E-04	0.94E-04	3.84E-04
13	9.50 0.	0.	3.60E-01	0.	0.	0.	1.34E-02	6.07E-04	9.42E-04	0.94E-04	3.10E-04
14	9.40 0.	0.	3.19E-01	0.	0.	0.	1.34E-02	6.07E-04	9.42E-04	0.94E-04	2.72E-04
15	9.30 0.	0.	1.12E-02	3.48E-01	0.	0.	1.35E-02	6.07E-04	9.42E-04	0.94E-04	3.77E-04
16	9.20 0.	0.	1.35E-02	2.65E-01	0.	0.	1.35E-02	6.07E-04	9.42E-04	0.94E-04	2.93E-04
17	9.10 0.	0.	1.60E-02	2.05E-01	0.	0.	1.36E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
18	9.00 0.	0.	1.86E-02	1.60E-01	0.	0.	1.36E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
19	8.90 0.	0.	2.13E-02	1.29E-01	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
20	8.80 0.	0.	2.20E-02	1.19E-01	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
21	8.70 0.	0.	2.12E-02	1.09E-01	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
22	8.60 0.	0.	2.04E-02	1.01E-01	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
23	8.50 0.	0.	1.98E-02	1.25E-01	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
24	8.40 0.	0.	1.97E-02	1.23E-01	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
25	8.30 0.	0.	1.95E-02	9.35E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
26	8.20 0.	0.	1.91E-02	9.35E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
27	8.10 0.	0.	1.89E-02	7.51E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
28	8.00 0.	0.	1.86E-02	7.35E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
29	7.90 0.	0.	1.75E-02	5.80E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
30	7.80 0.	0.	1.75E-02	5.80E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
31	7.70 0.	0.	1.65E-02	4.84E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
32	7.60 0.	0.	1.52E-02	4.30E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
33	7.50 0.	0.	1.44E-02	3.62E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
34	7.40 0.	0.	1.41E-02	3.24E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
35	7.30 0.	0.	1.34E-02	2.91E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
36	7.20 0.	0.	1.24E-02	2.59E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
37	7.10 0.	0.	1.15E-02	2.29E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
38	7.00 0.	0.	1.05E-02	2.00E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
39	6.90 0.	0.	9.40E-03	1.72E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
40	6.80 0.	0.	8.60E-03	1.59E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
41	6.70 0.	0.	7.70E-03	1.41E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
42	6.60 0.	0.	6.60E-03	1.26E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
43	6.50 0.	0.	5.60E-03	1.11E-02	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
44	6.40 0.	0.	4.60E-03	9.60E-03	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
45	6.30 0.	0.	3.60E-03	8.10E-03	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
46	6.20 0.	0.	2.70E-03	6.60E-03	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
47	6.10 0.	0.	1.80E-03	5.10E-03	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
48	6.00 0.	0.	1.42E-04	4.20E-04	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
49	5.90 0.	0.	1.01E-05	3.17E-04	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
50	5.80 0.	0.	2.48E-07	2.48E-07	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04
51	5.70 0.	0.	9.65E-04	9.65E-04	0.	0.	1.37E-02	6.07E-04	9.42E-04	0.94E-04	2.99E-04

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 10000. DENSITY (GM/CC) 1.293E-03 (10.0E-01 NORMAL)

PHOTON 02 S-W ENERGY BANDS	M2 1ST POS.	M2 2ND POS.	% 1ST NEG.	BETA	NO GAMMA	NO VIB-ROT	NO 2	0- PHOTO-DET (IONS)	FREE-FREE P.E.	M P.E.	G P.E.	TOTAL AIR P.E.
52	5.60	1.12E-03	0.	0.	3.15E-03	2.17E-02	0.	1.40E-02	3.01E-05	1.02E-03	1.40E-03	4.21E-02
53	5.50	1.26E-03	0.	0.	3.87E-03	2.08E-02	0.	1.31E-02	4.12E-05	1.03E-03	1.19E-03	4.27E-02
54	5.40	1.21E-03	0.	0.	3.29E-03	1.41E-02	0.	1.42E-02	4.36E-05	1.05E-03	1.21E-03	3.50E-02
55	5.30	1.26E-03	0.	0.	3.39E-03	2.04E-02	0.	1.43E-02	4.01E-05	1.07E-03	1.24E-03	4.14E-02
56	5.20	1.08E-04	0.	0.	3.52E-03	1.21E-02	0.	1.35E-02	4.80E-05	1.00E-03	1.24E-03	3.14E-02
57	5.10	7.65E-04	0.	0.	3.42E-03	1.65E-02	0.	1.45E-02	5.40E-05	1.12E-03	1.25E-03	3.76E-02
58	5.00	5.65E-04	0.	0.	3.01E-03	1.43E-02	0.	1.46E-02	5.30E-05	1.15E-03	1.32E-03	3.90E-02
59	4.90	4.73E-04	0.	0.	3.24E-03	1.44E-02	0.	1.47E-02	5.04E-05	1.10E-03	1.35E-03	3.55E-02
60	4.80	4.73E-04	0.	0.	3.41E-03	1.32E-02	0.	1.48E-02	6.22E-05	1.21E-03	1.30E-03	3.46E-02
61	4.70	5.09E-04	0.	0.	3.25E-03	1.13E-02	0.	1.50E-02	6.33E-05	1.24E-03	1.41E-03	3.27E-02
62	4.60	5.90E-04	0.	0.	3.24E-03	1.05E-02	0.	1.51E-02	7.07E-05	1.26E-03	1.45E-03	3.22E-02
63	4.50	5.97E-04	0.	0.	2.81E-03	7.50E-03	0.	1.52E-02	7.35E-05	1.33E-03	1.40E-03	2.97E-02
64	4.40	6.03E-04	0.	0.	2.74E-03	5.50E-03	0.	1.53E-02	8.00E-05	1.30E-03	1.52E-03	2.97E-02
65	4.30	5.40E-04	0.	0.	2.48E-03	3.13E-03	0.	1.54E-02	8.97E-05	1.33E-03	1.52E-03	3.09E-02
66	4.20	4.05E-04	0.	0.	2.57E-03	2.47E-03	0.	1.56E-02	9.30E-05	1.40E-03	1.59E-03	4.99E-02
67	4.10	4.37E-04	0.	0.	2.30E-03	6.38E-04	0.	1.56E-02	0.00E-05	1.53E-03	1.42E-03	3.03E-02
68	4.00	3.85E-04	0.	0.	2.21E-03	4.80E-04	0.	1.57E-02	1.00E-04	1.50E-03	1.50E-03	2.75E-02
69	3.90	3.05E-04	0.	0.	1.69E-03	2.09E-04	0.	1.56E-02	1.36E-04	1.51E-03	2.03E-04	5.42E-02
70	3.80	3.31E-04	0.	0.	2.24E-02	4.44E-03	2.00E-03	1.58E-02	1.20E-04	1.59E-03	2.92E-04	4.03E-02
71	3.70	2.73E-04	0.	0.	2.87E-02	1.07E-03	1.55E-03	1.53E-02	1.20E-04	1.64E-03	3.28E-04	4.84E-02
72	3.60	2.56E-04	0.	0.	1.52E-02	6.60E-03	1.69E-02	1.43E-02	1.40E-04	1.31E-03	3.70E-04	3.99E-02
73	3.50	2.10E-04	0.	0.	1.13E-02	2.04E-02	1.21E-02	1.31E-02	1.61E-04	1.08E-03	4.14E-04	5.99E-02
74	3.40	1.81E-04	0.	0.	1.17E-02	1.57E-03	1.34E-03	7.50E-03	1.70E-04	1.24E-03	4.62E-04	2.43E-02
75	3.30	1.45E-04	0.	0.	1.27E-02	6.65E-03	9.80E-04	7.90E-03	1.72E-04	1.30E-03	5.11E-04	3.22E-02
76	3.20	1.35E-04	0.	0.	7.23E-03	2.16E-02	1.61E-03	7.00E-03	2.11E-04	1.50E-03	5.02E-04	3.99E-02
77	3.10	1.04E-04	0.	0.	5.94E-03	2.49E-03	8.97E-04	7.62E-03	2.37E-04	1.67E-03	6.12E-04	1.91E-02
78	3.00	6.91E-05	0.	0.	3.13E-03	6.60E-03	7.93E-04	7.64E-03	2.97E-04	1.92E-03	6.93E-04	2.30E-02
79	2.90	6.94E-05	0.	0.	1.07E-03	5.63E-03	5.40E-04	7.65E-03	3.16E-04	1.97E-03	7.14E-04	1.87E-02
80	2.80	6.92E-05	0.	0.	8.72E-04	2.15E-03	3.39E-04	7.64E-03	3.16E-04	2.13E-03	7.49E-04	1.43E-02
81	2.70	4.06E-05	0.	0.	4.02E-04	1.19E-03	1.42E-04	7.66E-03	3.33E-04	2.36E-03	8.29E-04	1.59E-02
82	2.60	1.70E-05	0.	0.	2.05E-04	3.91E-04	6.38E-05	7.66E-03	3.66E-04	2.49E-03	8.99E-04	1.21E-02
83	2.50	1.44E-06	0.	0.	2.57E-05	3.04E-04	1.42E-05	7.66E-03	4.44E-04	2.80E-03	3.45E-04	1.16E-02
84	2.40	0.	0.	0.	3.35E-04	1.43E-06	0.	7.66E-03	5.04E-04	3.22E-03	4.22E-04	1.36E-02
85	2.30	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02
86	2.20	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02
87	2.10	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02
88	2.00	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02
89	1.90	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02
90	1.80	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02
91	1.70	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02
92	1.60	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02
93	1.50	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02
94	1.40	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02
95	1.30	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02
96	1.20	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02
97	1.10	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02
98	1.00	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02
99	0.90	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02
100	0.80	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02
101	0.70	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02
102	0.60	0.	0.	0.	0.	0.	0.	7.66E-03	6.34E-04	2.12E-03	5.04E-04	1.73E-02

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 5-M		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.2532-74		(15.02-02 NORMAL)		0		TOTAL AIR	
ENERGY BANDS		NO. 1		NO. 2		PHOTO-DET		FREE-FREE		P.E.		P.E.	
E.V.		NO. 1		NO. 2		PHOTO-DET		FREE-FREE		P.E.		P.E.	
1 10.70 0.	0.	2.45E-02	0.	0.	0.	4.50E-04	5.10E-07	6.81E-01	9.24E-05	7.00E-01	0.	0.	0.
2 13.60 0.	0.	2.11E-02	0.	0.	0.	4.10E-04	5.44E-07	4.57E-04	9.24E-05	2.20E-02	0.	0.	0.
3 15.50 0.	0.	2.06E-02	0.	0.	0.	4.10E-04	5.44E-07	4.57E-04	9.24E-05	2.19E-02	0.	0.	0.
4 17.40 0.	0.	1.89E-02	0.	0.	0.	4.11E-04	5.79E-07	4.59E-04	9.27E-05	1.99E-02	0.	0.	0.
5 19.30 0.	0.	1.92E-02	0.	0.	0.	4.11E-04	5.79E-07	4.60E-04	9.21E-05	1.67E-02	0.	0.	0.
6 21.20 0.	0.	1.52E-02	0.	0.	0.	4.12E-04	5.94E-07	4.51E-04	9.26E-05	1.61E-02	0.	0.	0.
7 23.10 0.	0.	1.30E-02	0.	0.	0.	4.12E-04	6.11E-07	4.51E-04	9.26E-05	1.41E-02	0.	0.	0.
8 25.00 0.	0.	1.12E-02	0.	0.	0.	4.13E-04	6.38E-07	4.63E-04	9.16E-05	1.22E-02	0.	0.	0.
9 26.90 0.	0.	1.13E-02	0.	0.	0.	4.13E-04	6.52E-07	4.64E-04	9.16E-05	1.20E-02	0.	0.	0.
10 28.80 0.	0.	1.01E-02	0.	0.	0.	4.13E-04	6.73E-07	4.66E-04	9.17E-05	1.10E-02	0.	0.	0.
11 30.70 0.	0.	8.10E-03	0.	0.	0.	4.13E-04	6.93E-07	4.67E-04	9.16E-05	9.07E-03	0.	0.	0.
12 32.60 0.	0.	6.60E-03	0.	0.	0.	4.16E-04	7.19E-07	4.68E-04	9.16E-05	9.64E-03	0.	0.	0.
13 34.50 0.	0.	6.79E-03	0.	0.	0.	4.17E-04	7.38E-07	4.67E-04	9.16E-05	7.92E-03	0.	0.	0.
14 36.40 0.	0.	9.14E-03	0.	0.	0.	4.18E-04	7.62E-07	4.71E-04	9.14E-05	7.29E-03	0.	0.	0.
15 38.30 0.	0.	1.15E-04	6.20E-03	0.	0.	4.20E-04	7.87E-07	4.72E-04	9.13E-05	7.30E-03	0.	0.	0.
16 40.20 0.	0.	1.39E-04	4.67E-03	0.	0.	4.21E-04	8.13E-07	4.73E-04	9.12E-05	5.79E-03	0.	0.	0.
17 42.10 0.	0.	1.69E-04	4.77E-03	0.	0.	4.23E-04	8.41E-07	1.30E-04	9.12E-05	5.54E-03	0.	0.	0.
18 44.00 0.	0.	1.92E-04	4.07E-03	0.	0.	4.24E-04	8.49E-07	1.30E-04	9.11E-05	4.91E-03	0.	0.	0.
19 45.90 0.	0.	2.20E-04	3.55E-03	0.	0.	4.26E-04	8.99E-07	1.30E-04	9.12E-05	4.42E-03	0.	0.	0.
20 47.80 0.	0.	2.27E-04	3.40E-03	0.	0.	4.27E-04	9.30E-07	1.29E-04	9.18E-05	4.27E-03	0.	0.	0.
21 49.70 0.	0.	2.10E-04	2.72E-03	0.	0.	4.29E-04	9.62E-07	1.29E-04	9.09E-05	3.59E-03	0.	0.	0.
22 51.60 0.	0.	2.10E-04	2.72E-03	0.	0.	4.30E-04	9.77E-07	1.29E-04	9.09E-05	3.62E-03	0.	0.	0.
23 53.50 0.	0.	2.03E-04	2.23E-03	0.	0.	4.32E-04	1.03E-06	1.29E-04	9.12E-05	3.89E-03	0.	0.	0.
24 55.40 0.	0.	2.03E-04	2.16E-03	0.	0.	4.34E-04	1.07E-06	1.28E-04	9.07E-05	3.81E-03	0.	0.	0.
25 57.30 0.	0.	2.01E-04	1.49E-03	0.	0.	4.37E-04	1.11E-06	1.28E-04	9.06E-05	2.55E-03	0.	0.	0.
26 59.20 0.	0.	1.97E-04	1.67E-03	0.	0.	4.39E-04	1.15E-06	1.28E-04	9.17E-05	2.43E-03	0.	0.	0.
27 61.10 0.	0.	1.91E-04	1.34E-03	0.	0.	4.41E-04	1.19E-06	1.28E-04	9.24E-05	2.19E-03	0.	0.	0.
28 63.00 0.	0.	1.86E-04	1.31E-03	0.	0.	4.43E-04	1.24E-06	1.27E-04	9.32E-05	2.16E-03	0.	0.	0.
29 64.90 0.	0.	1.80E-04	1.05E-03	0.	0.	4.46E-04	1.29E-06	1.27E-04	9.40E-05	1.98E-03	0.	0.	0.
30 66.80 0.	0.	1.73E-04	1.05E-03	0.	0.	4.48E-04	1.34E-06	1.27E-04	9.47E-05	1.90E-03	0.	0.	0.
31 68.70 0.	0.	1.66E-04	0.63E-04	0.	0.	4.50E-04	1.39E-06	1.27E-04	9.55E-05	1.71E-03	0.	0.	0.
32 70.60 0.	0.	1.60E-04	7.82E-04	0.	0.	4.52E-04	1.43E-06	1.27E-04	9.63E-05	1.62E-03	0.	0.	0.
33 72.50 0.	0.	1.52E-04	6.81E-04	0.	0.	4.54E-04	1.47E-06	1.27E-04	9.71E-05	1.51E-03	0.	0.	0.
34 74.40 0.	0.	1.45E-04	5.63E-04	0.	0.	4.57E-04	1.51E-06	1.27E-04	9.78E-05	1.41E-03	0.	0.	0.
35 76.30 0.	0.	1.38E-04	5.23E-04	0.	0.	4.60E-04	1.55E-06	1.27E-04	9.86E-05	1.35E-03	0.	0.	0.
36 78.20 0.	0.	1.30E-04	4.46E-04	0.	0.	4.62E-04	1.59E-06	1.27E-04	9.94E-05	1.28E-03	0.	0.	0.
37 80.10 0.	0.	1.22E-04	4.08E-04	0.	0.	4.64E-04	1.63E-06	1.27E-04	1.01E-05	1.27E-03	0.	0.	0.
38 82.00 0.	0.	1.15E-04	3.53E-04	0.	0.	4.66E-04	1.67E-06	1.27E-04	1.01E-05	1.27E-03	0.	0.	0.
39 83.90 0.	0.	1.08E-04	3.07E-04	0.	0.	4.68E-04	1.71E-06	1.27E-04	1.01E-05	1.27E-03	0.	0.	0.
40 85.80 0.	0.	1.01E-04	2.78E-04	0.	0.	4.70E-04	1.75E-06	1.27E-04	1.01E-05	1.27E-03	0.	0.	0.
41 87.70 0.	0.	9.47E-05	2.30E-04	0.	0.	4.72E-04	1.79E-06	1.27E-04	1.01E-05	1.27E-03	0.	0.	0.
42 89.60 0.	0.	8.83E-05	1.94E-04	0.	0.	4.74E-04	1.83E-06	1.27E-04	1.01E-05	1.27E-03	0.	0.	0.
43 91.50 0.	0.	8.19E-05	1.43E-04	0.	0.	4.76E-04	1.87E-06	1.27E-04	1.01E-05	1.27E-03	0.	0.	0.
44 93.40 0.	0.	7.55E-05	8.93E-05	0.	0.	4.78E-04	1.91E-06	1.27E-04	1.01E-05	1.27E-03	0.	0.	0.
45 95.30 0.	0.	6.91E-05	4.97E-05	0.	0.	4.80E-04	1.95E-06	1.27E-04	1.01E-05	1.27E-03	0.	0.	0.
46 97.20 0.	0.	6.27E-05	2.40E-05	0.	0.	4.82E-04	1.99E-06	1.27E-04	1.01E-05	1.27E-03	0.	0.	0.
47 99.10 0.	0.	5.63E-05	1.06E-05	0.	0.	4.84E-04	2.03E-06	1.27E-04	1.01E-05	1.27E-03	0.	0.	0.
48 101.00 0.	0.	5.00E-05	2.53E-06	0.	0.	4.86E-04	2.07E-06	1.27E-04	1.01E-05	1.27E-03	0.	0.	0.
49 102.90 0.	0.	4.38E-05	1.00E-07	0.	0.	4.88E-04	2.11E-06	1.27E-04	1.01E-05	1.27E-03	0.	0.	0.
50 104.80 0.	0.	3.76E-05	0.	0.	0.	4.90E-04	2.15E-06	1.27E-04	1.01E-05	1.27E-03	0.	0.	0.
51 106.70 0.	0.	3.14E-05	0.	0.	0.	4.92E-04	2.19E-06	1.27E-04	1.01E-05	1.27E-03	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON Q2 S-W		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-04 (10.0E-02 NORMAL)		0		TOTAL		
ENERGY	RANDS	N2	1ST POS.	N2	BETA	GAMMA	VIB-ROT	NO	2	PHOTO-DET (IONS)	P.E.	
52	5.60	1.18E-05	0.	0.	4.29E-05	2.95E-04	0.	0.	0.	4.37E-04	1.20E-04	1.04E-03
53	5.50	1.20E-05	0.	0.	5.26E-05	2.83E-04	0.	0.	0.	4.39E-04	1.20E-04	1.05E-03
54	5.40	1.24E-05	0.	0.	4.48E-05	1.91E-04	0.	0.	0.	4.41E-04	1.24E-04	1.05E-03
55	5.30	1.21E-05	0.	0.	4.61E-05	2.76E-04	0.	0.	0.	4.44E-04	1.26E-04	1.05E-03
56	5.20	1.60E-06	0.	0.	4.79E-05	1.65E-04	0.	0.	0.	4.47E-04	1.29E-04	1.05E-03
57	5.10	7.98E-06	0.	0.	4.66E-05	2.24E-04	0.	0.	0.	4.51E-04	1.32E-04	1.05E-03
58	5.00	5.89E-06	0.	0.	4.10E-05	1.95E-04	0.	0.	0.	4.59E-04	1.35E-04	1.05E-03
59	4.90	4.91E-06	0.	0.	4.41E-05	1.90E-04	0.	0.	0.	4.59E-04	1.35E-04	1.05E-03
60	4.80	4.91E-06	0.	0.	4.64E-05	1.80E-04	0.	0.	0.	4.62E-04	1.37E-04	1.05E-03
61	4.70	5.29E-06	0.	0.	4.43E-05	1.54E-04	0.	0.	0.	4.66E-04	1.37E-04	1.05E-03
62	4.60	6.21E-06	0.	0.	4.42E-05	1.43E-04	0.	0.	0.	4.70E-04	1.40E-04	1.05E-03
63	4.50	6.20E-06	0.	0.	3.63E-05	1.02E-04	0.	0.	0.	4.74E-04	1.41E-04	1.05E-03
64	4.40	5.28E-06	0.	0.	3.73E-05	7.49E-05	0.	0.	0.	4.77E-04	1.43E-04	1.05E-03
65	4.30	5.61E-06	0.	0.	3.58E-05	7.49E-05	0.	0.	0.	4.81E-04	1.45E-04	1.05E-03
66	4.20	5.04E-06	0.	0.	3.50E-05	3.36E-05	0.	0.	0.	4.85E-04	1.48E-04	1.05E-03
67	4.10	4.94E-06	0.	0.	3.24E-05	6.69E-06	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
68	4.00	4.08E-06	0.	0.	3.00E-05	6.65E-06	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
69	3.90	3.21E-06	0.	0.	2.60E-05	2.59E-04	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
70	3.80	3.44E-06	0.	0.	3.99E-05	2.72E-05	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
71	3.70	2.83E-06	0.	0.	5.12E-05	2.11E-05	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
72	3.60	2.49E-06	0.	0.	2.71E-04	3.97E-04	2.30E-05	0.	0.	4.87E-04	1.50E-04	1.05E-03
73	3.50	2.18E-06	0.	0.	4.16E-04	1.19E-03	1.65E-05	0.	0.	4.87E-04	1.50E-04	1.05E-03
74	3.40	1.88E-06	0.	0.	2.09E-04	9.14E-05	1.62E-05	0.	0.	4.87E-04	1.50E-04	1.05E-03
75	3.30	1.43E-06	0.	0.	2.27E-04	5.04E-04	1.35E-05	0.	0.	4.87E-04	1.50E-04	1.05E-03
76	3.20	1.19E-06	0.	0.	1.29E-04	1.26E-04	1.37E-05	0.	0.	4.87E-04	1.50E-04	1.05E-03
77	3.10	1.08E-06	0.	0.	9.91E-05	1.43E-04	1.22E-05	0.	0.	4.87E-04	1.50E-04	1.05E-03
78	3.00	9.19E-07	0.	0.	5.99E-05	5.02E-04	1.08E-05	0.	0.	4.87E-04	1.50E-04	1.05E-03
79	2.90	7.21E-07	0.	0.	3.33E-05	3.28E-04	7.47E-06	0.	0.	4.87E-04	1.50E-04	1.05E-03
80	2.80	7.19E-07	0.	0.	1.56E-05	1.24E-04	4.56E-06	0.	0.	4.87E-04	1.50E-04	1.05E-03
81	2.70	4.23E-07	0.	0.	7.17E-06	2.43E-04	2.20E-06	0.	0.	4.87E-04	1.50E-04	1.05E-03
82	2.60	1.77E-07	0.	0.	3.65E-06	2.28E-05	8.68E-07	0.	0.	4.87E-04	1.50E-04	1.05E-03
83	2.50	1.18E-08	0.	0.	4.58E-07	1.74E-05	1.93E-07	0.	0.	4.87E-04	1.50E-04	1.05E-03
84	2.40	0.	0.	0.	2.64E-05	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
85	2.30	0.	0.	0.	1.15E-04	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
86	2.20	0.	0.	0.	2.50E-04	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
87	2.10	0.	0.	0.	3.43E-04	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
88	2.00	0.	0.	0.	5.74E-04	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
89	1.90	0.	0.	0.	1.07E-03	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
90	1.80	0.	0.	0.	8.60E-04	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
91	1.70	0.	0.	0.	1.09E-03	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
92	1.60	0.	0.	0.	7.36E-04	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
93	1.50	0.	0.	0.	9.02E-04	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
94	1.40	0.	0.	0.	9.44E-04	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
95	1.30	0.	0.	0.	7.02E-04	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
96	1.20	0.	0.	0.	7.05E-04	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
97	1.10	0.	0.	0.	5.90E-04	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
98	1.00	0.	0.	0.	5.47E-04	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
99	0.90	0.	0.	0.	4.43E-04	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
100	0.80	0.	0.	0.	2.07E-04	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
101	0.70	0.	0.	0.	5.38E-05	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03
102	0.60	0.	0.	0.	3.77E-06	0.	0.	0.	0.	4.87E-04	1.50E-04	1.05E-03

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		10000.		DENSITY (GM/CC) 1.2932-35 (10.06-03 NORMAL)		NO		0- FRES-FREE		0		TOTAL AIR	
PHOTON Q2 S-R		Q2 S-R		NO		2		PHOTO-BET (1000)		P.E.		P.E.	
ENERGY BANDS		CONT.		40		BETA		GAMMA					
E.V.		NO. 1		NO									
1 10.70 0.	0.	2.59E-04	0.	0.	0.	0.	0.	1.27E-05	5.05E-08	4.65E-05	9.15E-06	3.27E-04	0.
2 10.60 0.	0.	2.23E-04	0.	0.	0.	0.	0.	1.27E-05	5.19E-08	4.67E-05	9.14E-06	3.27E-04	0.
3 10.50 0.	0.	2.12E-04	0.	0.	0.	0.	0.	1.27E-05	5.34E-08	4.70E-05	9.13E-06	3.27E-04	0.
4 10.40 0.	0.	1.96E-04	0.	0.	0.	0.	0.	1.27E-05	5.50E-08	4.72E-05	9.12E-06	3.27E-04	0.
5 10.30 0.	0.	1.81E-04	0.	0.	0.	0.	0.	1.27E-05	5.66E-08	4.74E-05	9.11E-06	3.27E-04	0.
6 10.20 0.	0.	1.65E-04	0.	0.	0.	0.	0.	1.26E-05	5.83E-08	4.74E-05	9.11E-06	3.27E-04	0.
7 10.10 0.	0.	1.48E-04	0.	0.	0.	0.	0.	1.26E-05	6.01E-08	4.75E-05	9.10E-06	3.27E-04	0.
8 10.00 0.	0.	1.31E-04	0.	0.	0.	0.	0.	1.26E-05	6.19E-08	4.76E-05	9.09E-06	3.27E-04	0.
9 9.90 0.	0.	1.20E-04	0.	0.	0.	0.	0.	1.26E-05	6.38E-08	4.76E-05	9.09E-06	3.27E-04	0.
10 9.80 0.	0.	1.06E-04	0.	0.	0.	0.	0.	1.26E-05	6.58E-08	4.76E-05	9.09E-06	3.27E-04	0.
11 9.70 0.	0.	8.56E-05	0.	0.	0.	0.	0.	1.26E-05	6.79E-08	4.76E-05	9.09E-06	3.27E-04	0.
12 9.60 0.	0.	6.68E-05	0.	0.	0.	0.	0.	1.26E-05	7.01E-08	4.76E-05	9.09E-06	3.27E-04	0.
13 9.50 0.	0.	4.91E-05	0.	0.	0.	0.	0.	1.26E-05	7.24E-08	4.76E-05	9.09E-06	3.27E-04	0.
14 9.40 0.	0.	3.35E-05	0.	0.	0.	0.	0.	1.26E-05	7.48E-08	4.76E-05	9.09E-06	3.27E-04	0.
15 9.30 0.	0.	1.37E-06	4.93E-05	0.	0.	0.	0.	1.26E-05	7.73E-08	4.76E-05	9.09E-06	3.27E-04	0.
16 9.20 0.	0.	1.37E-06	4.93E-05	0.	0.	0.	0.	1.26E-05	7.99E-08	4.76E-05	9.09E-06	3.27E-04	0.
17 9.10 0.	0.	1.63E-06	5.05E-05	0.	0.	0.	0.	1.26E-05	8.26E-08	4.76E-05	9.09E-06	3.27E-04	0.
18 9.00 0.	0.	1.89E-06	4.31E-05	0.	0.	0.	0.	1.26E-05	8.54E-08	4.76E-05	9.09E-06	3.27E-04	0.
19 8.90 0.	0.	2.14E-06	3.75E-05	0.	0.	0.	0.	1.26E-05	8.83E-08	4.76E-05	9.09E-06	3.27E-04	0.
20 8.80 0.	0.	2.35E-06	3.29E-05	0.	0.	0.	0.	1.26E-05	9.13E-08	4.76E-05	9.09E-06	3.27E-04	0.
21 8.70 0.	0.	2.52E-06	2.88E-05	0.	0.	0.	0.	1.26E-05	9.44E-08	4.76E-05	9.09E-06	3.27E-04	0.
22 8.60 0.	0.	2.67E-06	2.51E-05	0.	0.	0.	0.	1.26E-05	9.75E-08	4.76E-05	9.09E-06	3.27E-04	0.
23 8.50 0.	0.	2.80E-06	2.18E-05	0.	0.	0.	0.	1.26E-05	1.01E-07	4.76E-05	9.09E-06	3.27E-04	0.
24 8.40 0.	0.	2.90E-06	1.89E-05	0.	0.	0.	0.	1.26E-05	1.05E-07	4.76E-05	9.09E-06	3.27E-04	0.
25 8.30 0.	0.	1.94E-06	1.70E-05	0.	0.	0.	0.	1.26E-05	1.10E-07	4.76E-05	9.09E-06	3.27E-04	0.
26 8.20 0.	0.	1.84E-06	1.42E-05	0.	0.	0.	0.	1.26E-05	1.15E-07	4.76E-05	9.09E-06	3.27E-04	0.
27 8.10 0.	0.	1.83E-06	1.30E-05	0.	0.	0.	0.	1.26E-05	1.20E-07	4.76E-05	9.09E-06	3.27E-04	0.
28 8.00 0.	0.	1.77E-06	1.11E-05	0.	0.	0.	0.	1.26E-05	1.25E-07	4.76E-05	9.09E-06	3.27E-04	0.
29 7.90 0.	0.	1.72E-06	9.11E-05	0.	0.	0.	0.	1.26E-05	1.30E-07	4.76E-05	9.09E-06	3.27E-04	0.
30 7.80 0.	0.	1.64E-06	9.13E-06	0.	0.	0.	0.	1.26E-05	1.35E-07	4.76E-05	9.09E-06	3.27E-04	0.
31 7.70 0.	0.	1.54E-06	8.27E-06	0.	0.	0.	0.	1.26E-05	1.40E-07	4.76E-05	9.09E-06	3.27E-04	0.
32 7.60 0.	0.	1.50E-06	7.20E-06	0.	0.	0.	0.	1.26E-05	1.45E-07	4.76E-05	9.09E-06	3.27E-04	0.
33 7.50 0.	0.	1.43E-06	6.10E-06	0.	0.	0.	0.	1.26E-05	1.50E-07	4.76E-05	9.09E-06	3.27E-04	0.
34 7.40 0.	0.	1.34E-06	5.55E-06	0.	0.	0.	0.	1.26E-05	1.55E-07	4.76E-05	9.09E-06	3.27E-04	0.
35 7.30 0.	0.	1.24E-06	4.72E-06	0.	0.	0.	0.	1.26E-05	1.60E-07	4.76E-05	9.09E-06	3.27E-04	0.
36 7.20 0.	0.	1.21E-06	4.37E-06	0.	0.	0.	0.	1.26E-05	1.65E-07	4.76E-05	9.09E-06	3.27E-04	0.
37 7.10 0.	0.	1.03E-09	0.	0.	0.	0.	0.	1.26E-05	1.81E-07	4.76E-05	9.09E-06	3.27E-04	0.
38 7.00 1.03E-09	0.	3.74E-06	0.	0.	0.	0.	0.	1.26E-05	1.89E-07	4.76E-05	9.09E-06	3.27E-04	0.
39 6.90 1.94E-09	0.	3.24E-06	0.	0.	0.	0.	0.	1.26E-05	1.98E-07	4.76E-05	9.09E-06	3.27E-04	0.
40 6.80 1.62E-09	0.	2.94E-06	0.	0.	0.	0.	0.	1.26E-05	2.07E-07	4.76E-05	9.09E-06	3.27E-04	0.
41 6.70 1.13E-09	0.	2.43E-06	0.	0.	0.	0.	0.	1.26E-05	2.16E-07	4.76E-05	9.09E-06	3.27E-04	0.
42 6.60 6.65E-10	0.	2.05E-06	0.	0.	0.	0.	0.	1.26E-05	2.25E-07	4.76E-05	9.09E-06	3.27E-04	0.
43 6.50 3.69E-10	0.	1.52E-06	0.	0.	0.	0.	0.	1.26E-05	2.34E-07	4.76E-05	9.09E-06	3.27E-04	0.
44 6.40 5.07E-10	0.	9.44E-07	0.	0.	0.	0.	0.	1.26E-05	2.43E-07	4.76E-05	9.09E-06	3.27E-04	0.
45 6.30 1.05E-09	0.	5.26E-07	0.	0.	0.	0.	0.	1.26E-05	2.52E-07	4.76E-05	9.09E-06	3.27E-04	0.
46 6.20 3.11E-09	0.	2.63E-07	0.	0.	0.	0.	0.	1.26E-05	2.61E-07	4.76E-05	9.09E-06	3.27E-04	0.
47 6.10 1.24E-08	0.	1.12E-07	0.	0.	0.	0.	0.	1.26E-05	2.70E-07	4.76E-05	9.09E-06	3.27E-04	0.
48 6.00 3.23E-08	0.	2.68E-08	0.	0.	0.	0.	0.	1.26E-05	2.79E-07	4.76E-05	9.09E-06	3.27E-04	0.
49 5.90 5.20E-08	0.	1.90E-09	0.	0.	0.	0.	0.	1.26E-05	2.88E-07	4.76E-05	9.09E-06	3.27E-04	0.
50 5.80 7.84E-08	0.	4.49E-11	0.	0.	0.	0.	0.	1.26E-05	2.97E-07	4.76E-05	9.09E-06	3.27E-04	0.
51 5.70 9.20E-08	0.	0.	0.	0.	0.	0.	0.	1.26E-05	3.06E-07	4.76E-05	9.09E-06	3.27E-04	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 1000. DENSITY (GM/CC) 1.233E-05 (10.0E-03 NORMAL)

WANTON C2 3-B	N2	N2*	NO	AO	NO	NO	0-	FREE-FREE	N	0	TOTAL AIR	
ENERGY BANDS	1ST POS.	2ND POS.	1ST NEG.	SARMA	VIB-ROT	2	PHOTO-DE-	(IONS)	P.E	P.F.		
52	5.62	1.14E-07	0.	0.	4.37E-07	3.01E-06	0.	1.35E-05	3.54E-07	1.48E-05	1.19E-05	4.33E-05
53	5.53	1.10E-07	0.	0.	5.36E-07	2.80E-06	0.	1.36E-05	3.74E-07	1.42E-05	1.21E-05	4.30E-05
54	5.46	1.23E-07	0.	0.	4.37E-07	1.95E-06	0.	1.37E-05	3.98E-07	1.45E-05	1.22E-05	4.30E-05
55	5.36	1.10E-07	0.	0.	4.70E-07	2.63E-06	0.	1.38E-05	4.19E-07	1.47E-05	1.25E-05	4.27E-05
56	5.22	8.43E-08	0.	0.	4.08E-07	1.83E-06	0.	1.39E-05	4.43E-07	1.49E-05	1.29E-05	4.23E-05
57	5.10	7.93E-08	0.	0.	4.75E-07	2.28E-06	0.	1.40E-05	4.70E-07	1.53E-05	1.31E-05	4.27E-05
58	5.00	5.77E-08	0.	0.	4.10E-07	1.99E-06	0.	1.41E-05	4.99E-07	1.58E-05	1.25E-05	4.21E-05
59	4.90	4.82E-08	0.	0.	4.50E-07	2.00E-06	0.	1.42E-05	5.30E-07	1.62E-05	1.36E-05	4.20E-05
60	4.80	4.82E-08	0.	0.	4.75E-07	1.84E-06	0.	1.43E-05	5.60E-07	1.66E-05	1.39E-05	4.20E-05
61	4.70	5.19E-08	0.	0.	4.31E-07	1.54E-06	0.	1.44E-05	6.01E-07	1.71E-05	1.43E-05	4.25E-05
62	4.61	6.09E-08	0.	0.	4.50E-07	1.44E-06	0.	1.45E-05	6.51E-07	1.76E-05	1.46E-05	4.24E-05
63	4.50	6.08E-08	0.	1.33E-07	0.	0.	0.	1.47E-05	6.95E-07	1.83E-05	1.50E-05	4.27E-05
64	4.46	6.14E-08	0.	4.77E-07	0.	0.	0.	1.48E-05	7.34E-07	1.89E-05	1.53E-05	4.27E-05
65	4.30	5.77E-08	0.	1.16E-06	0.	0.	0.	1.49E-05	7.76E-07	1.96E-05	1.57E-05	4.30E-05
66	4.20	4.93E-08	0.	4.78E-06	0.	0.	0.	1.50E-05	8.44E-07	2.03E-05	1.60E-05	4.37E-05
67	4.10	4.51E-08	0.	1.58E-06	0.	0.	0.	1.51E-05	9.08E-07	2.10E-05	1.70E-05	4.47E-05
68	4.00	3.93E-08	0.	6.08E-06	0.	0.	0.	1.51E-05	9.78E-07	2.15E-05	1.75E-05	4.45E-05
69	3.90	3.35E-08	0.	2.97E-06	0.	0.	0.	1.51E-05	1.06E-06	2.19E-05	1.79E-05	4.45E-05
70	3.80	3.77E-08	0.	4.29E-06	0.	0.	0.	1.50E-05	1.14E-06	2.18E-05	1.78E-05	4.43E-05
71	3.70	2.78E-08	0.	5.42E-06	0.	0.	0.	1.48E-05	1.24E-06	2.16E-05	1.73E-05	4.44E-05
72	3.60	2.41E-08	0.	4.48E-06	0.	0.	0.	1.47E-05	1.34E-06	2.14E-05	1.73E-05	4.43E-05
73	3.50	2.14E-08	0.	4.48E-06	0.	0.	0.	1.47E-05	1.46E-06	2.15E-05	1.74E-05	4.43E-05
74	3.40	1.84E-08	0.	2.21E-06	0.	0.	0.	1.47E-05	1.68E-06	2.17E-05	1.71E-05	4.46E-05
75	3.30	1.43E-08	0.	2.40E-06	0.	0.	0.	1.47E-05	1.75E-06	2.18E-05	1.70E-05	4.46E-05
76	3.20	1.17E-08	0.	1.36E-06	0.	0.	0.	1.47E-05	1.92E-06	2.18E-05	1.70E-05	4.46E-05
77	3.10	1.06E-08	0.	1.05E-06	0.	0.	0.	1.47E-05	2.11E-06	2.18E-05	1.70E-05	4.46E-05
78	3.00	8.98E-09	0.	5.91E-07	0.	0.	0.	1.47E-05	2.33E-06	2.18E-05	1.70E-05	4.46E-05
79	2.90	7.07E-09	0.	3.52E-07	0.	0.	0.	1.47E-05	2.58E-06	2.20E-05	1.70E-05	4.46E-05
80	2.80	7.05E-09	0.	1.65E-07	0.	0.	0.	1.47E-05	2.80E-06	2.23E-05	1.71E-05	4.46E-05
81	2.70	4.74E-09	0.	7.50E-08	0.	0.	0.	1.47E-05	3.02E-06	2.24E-05	1.71E-05	4.46E-05
82	2.60	1.74E-09	0.	3.86E-08	0.	0.	0.	1.47E-05	3.26E-06	2.26E-05	1.71E-05	4.46E-05
83	2.50	1.14E-10	0.	4.85E-09	0.	0.	0.	1.47E-05	3.50E-06	2.28E-05	1.71E-05	4.46E-05
84	2.40	0.	0.	6.61E-07	0.	0.	0.	1.47E-05	3.74E-06	2.30E-05	1.71E-05	4.46E-05
85	2.30	0.	0.	1.22E-06	0.	0.	0.	1.47E-05	3.98E-06	2.32E-05	1.71E-05	4.46E-05
86	2.20	0.	0.	2.64E-06	0.	0.	0.	1.47E-05	4.22E-06	2.34E-05	1.71E-05	4.46E-05
87	2.10	0.	0.	3.64E-06	0.	0.	0.	1.47E-05	4.46E-06	2.36E-05	1.71E-05	4.46E-05
88	2.00	0.	0.	6.07E-06	0.	0.	0.	1.47E-05	4.70E-06	2.38E-05	1.71E-05	4.46E-05
89	1.90	0.	0.	1.13E-05	0.	0.	0.	1.47E-05	4.94E-06	2.40E-05	1.71E-05	4.46E-05
90	1.80	0.	0.	9.14E-06	0.	0.	0.	1.47E-05	5.18E-06	2.42E-05	1.71E-05	4.46E-05
91	1.70	0.	0.	1.11E-05	0.	0.	0.	1.47E-05	5.42E-06	2.44E-05	1.71E-05	4.46E-05
92	1.60	0.	0.	7.76E-06	0.	0.	0.	1.47E-05	5.66E-06	2.46E-05	1.71E-05	4.46E-05
93	1.50	0.	0.	9.54E-06	0.	0.	0.	1.47E-05	5.90E-06	2.48E-05	1.71E-05	4.46E-05
94	1.40	0.	0.	7.00E-06	0.	0.	0.	1.47E-05	6.14E-06	2.50E-05	1.71E-05	4.46E-05
95	1.30	0.	0.	7.42E-06	0.	0.	0.	1.47E-05	6.38E-06	2.52E-05	1.71E-05	4.46E-05
96	1.20	0.	0.	7.42E-06	0.	0.	0.	1.47E-05	6.62E-06	2.54E-05	1.71E-05	4.46E-05
97	1.10	0.	0.	6.24E-06	0.	0.	0.	1.47E-05	6.86E-06	2.56E-05	1.71E-05	4.46E-05
98	1.00	0.	0.	5.76E-06	0.	0.	0.	1.47E-05	7.10E-06	2.58E-05	1.71E-05	4.46E-05
99	0.90	0.	0.	4.46E-06	0.	0.	0.	1.47E-05	7.34E-06	2.60E-05	1.71E-05	4.46E-05
100	0.80	0.	0.	2.16E-06	0.	0.	0.	1.47E-05	7.58E-06	2.62E-05	1.71E-05	4.46E-05
101	0.70	0.	0.	3.69E-07	0.	0.	0.	1.47E-05	7.82E-06	2.64E-05	1.71E-05	4.46E-05
102	0.60	0.	0.	3.98E-06	0.	0.	0.	1.47E-05	8.06E-06	2.66E-05	1.71E-05	4.46E-05

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CASE)
TEMPERATURE (DEGREES K) 10000. DENSITY (GM/CC) 1.293E-06 (13.0E-04 NORMAL)

PHOTON ENERGY E.V.	02 S-R BANDS	02 S-R CONT.	N2 8-M NO. 1	NO META	NO GAMMA	NO 2	0- PHOTO-DEF (TOMS)	FREE-FREE N P.E.	0 P.E.	TOTAL AIR	
1 10.70 0.	0.	0.	2.30E-06	0.	0.	0.	3.72E-07	4.74E-09	4.38E-06	8.77E-07	7.93E-06
2 10.60 0.	0.	0.	1.98E-06	0.	0.	0.	3.73E-07	4.80E-09	4.41E-06	8.76E-07	7.64E-06
3 10.50 0.	0.	0.	1.93E-06	0.	0.	0.	3.73E-07	5.02E-09	4.42E-06	8.76E-07	7.61E-06
4 10.40 0.	0.	0.	1.74E-06	0.	0.	0.	3.74E-07	5.17E-09	4.44E-06	8.75E-07	7.44E-06
5 10.30 0.	0.	0.	1.48E-06	0.	0.	0.	3.74E-07	5.32E-09	4.46E-06	8.74E-07	7.14E-06
6 10.20 0.	0.	0.	1.42E-06	0.	0.	0.	3.75E-07	5.48E-09	4.47E-06	8.73E-07	7.14E-06
7 10.10 0.	0.	0.	1.26E-06	0.	0.	0.	3.75E-07	5.64E-09	4.48E-06	8.73E-07	7.02E-06
8 10.00 0.	0.	0.	1.09E-06	0.	0.	0.	3.75E-07	5.81E-09	4.49E-06	8.72E-07	6.79E-06
9 9.9 0.	0.	0.	1.04E-06	0.	0.	0.	3.75E-07	5.98E-09	4.50E-06	8.71E-07	6.82E-06
10 9.80 0.	0.	0.	9.45E-07	0.	0.	0.	3.77E-07	6.16E-09	4.51E-06	8.70E-07	6.71E-06
11 9.70 0.	0.	0.	7.48E-07	0.	0.	0.	3.78E-07	6.37E-09	4.52E-06	8.69E-07	6.54E-06
12 9.60 0.	0.	0.	6.19E-07	0.	0.	0.	3.78E-07	6.57E-09	4.53E-06	8.68E-07	6.50E-06
13 9.50 0.	0.	0.	6.10E-09	0.	0.	0.	3.78E-07	6.78E-09	4.53E-06	8.68E-07	6.45E-06
14 9.40 0.	0.	0.	6.23E-09	0.	0.	0.	3.81E-07	7.00E-09	4.54E-06	8.67E-07	6.40E-06
15 9.30 0.	0.	0.	1.04E-08	0.	0.	0.	3.82E-07	7.23E-09	4.54E-06	8.66E-07	6.32E-06
16 9.20 0.	0.	0.	1.25E-08	0.	0.	0.	3.83E-07	7.47E-09	4.55E-06	8.66E-07	6.27E-06
17 9.10 0.	0.	0.	1.46E-08	0.	0.	0.	3.85E-07	7.72E-09	4.56E-06	8.65E-07	6.22E-06
18 9.00 0.	0.	0.	1.73E-08	0.	0.	0.	3.86E-07	7.98E-09	4.56E-06	8.64E-07	6.17E-06
19 8.90 0.	0.	0.	1.97E-08	0.	0.	0.	3.87E-07	8.26E-09	4.57E-06	8.64E-07	6.12E-06
20 8.8 0.	0.	0.	2.04E-08	0.	0.	0.	3.89E-07	8.54E-09	4.58E-06	8.63E-07	6.07E-06
21 8.7 0.	0.	0.	1.96E-08	0.	0.	0.	3.90E-07	8.84E-09	4.58E-06	8.62E-07	6.02E-06
22 8.6 0.	0.	0.	1.89E-08	0.	0.	0.	3.92E-07	9.16E-09	4.59E-06	8.62E-07	5.97E-06
23 8.50 0.	0.	0.	1.84E-08	0.	0.	0.	3.93E-07	9.48E-09	4.59E-06	8.61E-07	5.92E-06
24 8.40 0.	0.	0.	1.85E-08	0.	0.	0.	3.95E-07	9.83E-09	4.59E-06	8.60E-07	5.87E-06
25 8.30 0.	0.	0.	1.81E-08	0.	0.	0.	3.97E-07	1.02E-08	4.59E-06	8.62E-07	5.82E-06
26 8.20 0.	0.	0.	1.77E-08	0.	0.	0.	3.99E-07	1.06E-08	4.59E-06	8.70E-07	5.79E-06
27 8.10 0.	0.	0.	1.72E-08	0.	0.	0.	4.01E-07	1.10E-08	4.59E-06	8.77E-07	5.76E-06
28 8.00 0.	0.	0.	1.67E-08	0.	0.	0.	4.03E-07	1.14E-08	4.59E-06	8.84E-07	5.73E-06
29 7.90 0.	0.	0.	1.62E-08	0.	0.	0.	4.05E-07	1.18E-08	4.59E-06	8.92E-07	5.68E-06
30 7.80 0.	0.	0.	1.57E-08	0.	0.	0.	4.07E-07	1.22E-08	4.59E-06	8.99E-07	5.63E-06
31 7.70 0.	0.	0.	1.51E-08	0.	0.	0.	4.10E-07	1.26E-08	4.59E-06	9.06E-07	5.58E-06
32 7.60 0.	0.	0.	1.44E-08	0.	0.	0.	4.12E-07	1.30E-08	4.59E-06	9.14E-07	5.54E-06
33 7.50 0.	0.	0.	1.37E-08	0.	0.	0.	4.14E-07	1.34E-08	4.59E-06	9.21E-07	5.49E-06
34 7.40 0.	0.	0.	1.30E-08	0.	0.	0.	4.16E-07	1.38E-08	4.59E-06	9.28E-07	5.44E-06
35 7.30 0.	0.	0.	1.24E-08	0.	0.	0.	4.18E-07	1.42E-08	4.59E-06	9.35E-07	5.39E-06
36 7.20 0.	0.	0.	1.17E-08	0.	0.	0.	4.21E-07	1.46E-08	4.59E-06	9.43E-07	5.34E-06
37 7.10 0.	0.	0.	1.10E-08	0.	0.	0.	4.23E-07	1.50E-08	4.59E-06	9.50E-07	5.29E-06
38 7.00 0.	0.	0.	9.45E-12	0.	0.	0.	4.25E-07	1.54E-08	4.59E-06	9.57E-07	5.24E-06
39 6.90 0.	0.	0.	3.32E-08	0.	0.	0.	4.27E-07	1.58E-08	4.59E-06	9.64E-07	5.19E-06
40 6.80 0.	0.	0.	2.88E-08	0.	0.	0.	4.31E-07	1.70E-08	4.59E-06	9.72E-07	5.14E-06
41 6.70 0.	0.	0.	2.61E-08	0.	0.	0.	4.36E-07	1.86E-08	4.59E-06	9.80E-07	5.09E-06
42 6.60 0.	0.	0.	1.82E-08	0.	0.	0.	4.41E-07	1.94E-08	4.59E-06	9.88E-07	5.04E-06
43 6.50 0.	0.	0.	1.35E-08	0.	0.	0.	4.46E-07	2.03E-08	4.59E-06	9.96E-07	4.99E-06
44 6.40 0.	0.	0.	8.38E-09	0.	0.	0.	4.48E-07	2.07E-08	4.59E-06	1.00E-06	4.94E-06
45 6.30 0.	0.	0.	4.67E-09	0.	0.	0.	4.52E-07	2.13E-08	4.59E-06	1.01E-06	4.89E-06
46 6.20 0.	0.	0.	2.33E-09	0.	0.	0.	4.55E-07	2.19E-08	4.59E-06	1.02E-06	4.84E-06
47 6.10 0.	0.	0.	9.95E-10	0.	0.	0.	4.58E-07	2.25E-08	4.59E-06	1.03E-06	4.79E-06
48 6.00 0.	0.	0.	2.38E-10	0.	0.	0.	4.62E-07	2.31E-08	4.59E-06	1.04E-06	4.74E-06
49 5.90 0.	0.	0.	1.69E-11	0.	0.	0.	4.65E-07	2.37E-08	4.59E-06	1.05E-06	4.69E-06
50 5.80 0.	0.	0.	7.20E-10	0.	0.	0.	4.68E-07	2.43E-08	4.59E-06	1.06E-06	4.64E-06
51 5.70 0.	0.	0.	8.44E-10	0.	0.	0.	4.72E-07	2.49E-08	4.59E-06	1.07E-06	4.59E-06

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON Q2 S-R ENERGY BANDS	N2 1ST POS.	N2 2ND POS.	N2+ 1ST NEG.	N0 BETA	AD GAMMA	N0 VIB-RPT	N0 2	O- PHOTO-DET	FREE-FREE (IONS)	N P.E.	C P.E.	TOTAL AIC
52	5.60	1.05E-09	0.	0.	3.95E-09	2.71E-08	0.	3.97E-07	3.33E-06	1.32E-06	1.14E-06	2.32E-06
53	5.56	1.08E-09	0.	0.	4.85E-09	2.60E-08	0.	4.00E-07	3.52E-06	1.34E-06	1.16E-06	2.36E-06
54	5.40	1.13E-09	0.	0.	4.12E-09	1.74E-08	0.	4.02E-07	3.72E-06	1.36E-06	1.17E-06	3.59E-06
55	5.30	1.09E-09	0.	0.	4.24E-09	2.55E-08	0.	4.04E-07	3.93E-06	1.38E-06	1.22E-06	3.40E-06
56	5.20	7.74E-10	0.	0.	4.40E-09	1.52E-08	0.	4.07E-07	4.17E-06	1.41E-06	1.26E-06	3.30E-06
57	5.10	7.19E-10	0.	0.	4.29E-09	2.04E-08	0.	4.10E-07	4.43E-06	1.44E-06	1.25E-06	3.18E-06
58	5.00	5.30E-10	0.	0.	3.77E-09	1.79E-08	0.	4.14E-07	4.69E-06	1.48E-06	1.24E-06	3.15E-06
59	4.90	4.42E-10	0.	0.	4.04E-09	1.80E-08	0.	4.17E-07	4.95E-06	1.53E-06	1.31E-06	3.32E-06
60	4.80	4.42E-10	0.	0.	4.27E-09	1.66E-08	0.	4.21E-07	5.30E-06	1.57E-06	1.33E-06	3.43E-06
61	4.70	4.76E-10	0.	0.	4.07E-09	1.41E-08	0.	4.24E-07	5.65E-06	1.61E-06	1.37E-06	3.48E-06
62	4.60	5.59E-10	0.	0.	4.04E-09	1.31E-08	0.	4.27E-07	6.00E-06	1.66E-06	1.40E-06	3.57E-06
63	4.50	5.58E-10	0.	1.10E-09	3.52E-09	3.39E-09	0.	4.31E-07	6.44E-06	1.72E-06	1.44E-06	3.47E-06
64	4.40	5.63E-10	0.	4.24E-09	3.43E-09	6.84E-09	0.	4.34E-07	6.89E-06	1.79E-06	1.47E-06	3.77E-06
65	4.30	5.05E-10	0.	1.95E-08	3.11E-09	3.92E-09	0.	4.38E-07	7.33E-06	1.85E-06	1.50E-06	3.62E-06
66	4.20	4.54E-10	0.	4.22E-08	3.22E-09	3.92E-09	0.	4.41E-07	7.78E-06	1.92E-06	1.47E-06	3.68E-06
67	4.10	4.09E-10	0.	1.38E-08	2.58E-09	7.99E-10	0.	4.43E-07	8.33E-06	1.98E-06	1.59E-06	2.79E-06
68	4.00	3.60E-10	0.	5.33E-08	2.78E-09	6.11E-10	0.	4.45E-07	8.93E-06	2.04E-06	1.66E-06	2.73E-06
69	3.90	2.89E-10	0.	2.03E-08	3.72E-09	2.62E-10	0.	4.43E-07	9.47E-06	2.10E-06	1.74E-06	2.15E-06
70	3.80	3.09E-10	0.	3.74E-08	3.72E-09	2.62E-10	0.	4.41E-07	1.01E-06	2.16E-06	1.80E-06	2.43E-06
71	3.70	2.55E-10	0.	4.81E-08	3.18E-09	1.96E-09	0.	4.38E-07	1.15E-06	2.13E-06	1.84E-06	2.37E-06
72	3.60	2.21E-10	0.	2.54E-08	3.89E-07	2.11E-09	0.	4.37E-07	1.28E-06	2.16E-06	1.86E-06	2.57E-06
73	3.50	1.96E-10	0.	3.90E-08	3.17E-06	1.51E-09	0.	4.32E-07	1.37E-06	2.13E-06	1.80E-06	2.54E-06
74	3.40	1.69E-10	0.	1.96E-08	8.95E-08	1.68E-09	0.	2.15E-07	1.50E-06	2.11E-06	1.74E-06	2.43E-06
75	3.30	1.31E-10	0.	2.13E-08	4.93E-07	1.24E-09	0.	2.15E-07	1.64E-06	2.10E-06	1.69E-06	2.31E-06
76	3.20	1.07E-10	0.	1.21E-08	1.23E-06	1.24E-09	0.	2.15E-07	1.80E-06	2.10E-06	1.63E-06	2.14E-06
77	3.10	9.74E-11	0.	9.31E-09	1.43E-09	1.15E-09	0.	2.15E-07	1.95E-06	2.10E-06	1.57E-06	2.02E-06
78	3.00	8.24E-11	0.	5.84E-09	1.43E-07	9.93E-10	0.	2.15E-07	2.10E-06	2.12E-06	1.50E-06	1.92E-06
79	2.90	6.47E-11	0.	3.12E-09	3.21E-07	6.86E-10	0.	2.15E-07	2.23E-06	2.15E-06	1.43E-06	1.82E-06
80	2.80	6.47E-11	0.	1.17E-09	3.12E-07	6.19E-10	0.	2.15E-07	2.36E-06	2.15E-06	1.36E-06	1.71E-06
81	2.70	3.80E-11	0.	6.73E-10	2.40E-07	2.90E-10	0.	2.15E-07	2.51E-06	2.18E-06	1.28E-06	1.58E-06
82	2.60	1.59E-11	0.	3.43E-10	2.24E-07	2.04E-10	0.	2.15E-07	2.66E-06	2.22E-06	1.20E-06	1.49E-06
83	2.50	1.07E-12	0.	4.80E-11	1.74E-08	1.75E-11	0.	2.15E-07	2.80E-06	2.26E-06	1.12E-06	1.40E-06
84	2.40	0.	2.50E-09	0.	1.91E-08	1.79E-12	0.	2.15E-07	2.95E-06	2.30E-06	1.04E-06	1.31E-06
85	2.30	0.	1.04E-08	0.	0.	0.	0.	2.15E-07	3.10E-06	2.34E-06	9.6E-07	1.22E-06
86	2.20	0.	2.35E-08	0.	0.	0.	0.	2.15E-07	3.25E-06	2.38E-06	8.8E-07	1.13E-06
87	2.10	0.	3.22E-08	0.	0.	0.	0.	2.15E-07	3.40E-06	2.42E-06	8.0E-07	1.04E-06
88	2.00	0.	5.39E-08	0.	0.	0.	0.	2.07E-07	3.55E-06	2.46E-06	7.2E-07	9.5E-07
89	1.90	0.	10.05E-08	0.	0.	0.	0.	1.99E-07	3.70E-06	2.50E-06	6.4E-07	8.6E-07
90	1.80	0.	8.01E-08	0.	0.	0.	0.	1.90E-07	3.85E-06	2.54E-06	5.6E-07	7.7E-07
91	1.70	0.	9.84E-08	0.	0.	0.	0.	1.82E-07	4.00E-06	2.58E-06	4.8E-07	6.8E-07
92	1.60	0.	6.90E-08	0.	0.	0.	0.	1.74E-07	4.15E-06	2.62E-06	4.0E-07	5.9E-07
93	1.50	0.	8.47E-08	0.	0.	0.	0.	1.66E-07	4.30E-06	2.66E-06	3.2E-07	5.0E-07
94	1.40	0.	8.80E-08	0.	0.	0.	0.	1.58E-07	4.45E-06	2.70E-06	2.4E-07	4.1E-07
95	1.30	0.	6.50E-08	0.	0.	0.	0.	1.50E-07	4.60E-06	2.74E-06	1.6E-07	3.2E-07
96	1.20	0.	6.62E-08	0.	0.	0.	0.	1.42E-07	4.75E-06	2.78E-06	8E-08	2.3E-07
97	1.1E	0.	5.54E-08	0.	0.	2.50E-13	0.	1.34E-07	4.90E-06	2.82E-06	2E-08	1.4E-07
98	1.00	0.	5.13E-08	0.	0.	2.38E-12	0.	1.26E-07	5.05E-06	2.86E-06	2.8E-08	5.5E-08
99	0.90	0.	4.16E-08	0.	0.	2.90E-12	0.	1.18E-07	5.20E-06	2.90E-06	4.0E-08	3.6E-08
100	0.80	0.	1.94E-08	0.	0.	5.07E-11	0.	1.10E-07	5.35E-06	2.94E-06	4.5E-08	4.7E-08
101	0.70	0.	5.05E-09	0.	0.	3.50E-11	0.	1.02E-07	5.50E-06	2.98E-06	4.4E-08	4.6E-08
102	0.60	0.	3.54E-10	0.	0.	1.39E-10	0.	1.04E-07	5.65E-06	3.02E-06	4.1E-08	4.3E-08

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)
TEMPERATURE (DEGREES K) 10200. DENSITY (GM/CC) 1.293E-07 (10.0E-05 NORMAL)

PHOTON ENERGY BANDS E.V.	02 S-R CONT.	02 S-R NO. 1	NO META	NO GAMMA	NO 2	0- PHOTO-DET (IONS)	FREE-PRICE M P.E.	TOTAL AIR P.E.
1 10.70 0.	0.	1.58E-08	0.	0.	0.	9.27E-09	3.91E-10	3.98E-07
2 21.40 0.	0.	1.32E-08	0.	0.	0.	9.28E-09	4.92E-10	3.40E-07
3 10.50 0.	0.	1.29E-08	0.	0.	0.	9.29E-09	4.13E-10	3.59E-07
4 10.40 0.	0.	1.14E-08	0.	0.	0.	9.30E-09	4.26E-10	3.43E-07
5 10.30 0.	0.	9.56E-09	0.	0.	0.	9.31E-09	4.38E-10	3.43E-07
6 10.20 0.	0.	9.50E-09	0.	0.	0.	9.33E-09	4.51E-10	3.43E-07
7 10.10 0.	0.	6.62E-09	0.	0.	0.	9.34E-09	4.58E-10	3.43E-07
8 10.00 0.	0.	7.02E-09	0.	0.	0.	9.35E-09	4.59E-10	3.43E-07
9 9.90 0.	0.	7.09E-09	0.	0.	0.	9.37E-09	4.94E-10	3.43E-07
10 9.80 0.	0.	4.31E-09	0.	0.	0.	9.39E-09	5.09E-10	3.43E-07
11 9.70 0.	0.	5.07E-09	0.	0.	0.	9.40E-09	5.25E-10	3.43E-07
12 9.60 0.	0.	5.44E-09	0.	0.	0.	9.42E-09	5.32E-10	3.43E-07
13 9.50 0.	0.	4.61E-11	0.	0.	0.	9.44E-09	5.39E-10	3.43E-07
14 9.40 0.	0.	6.22E-11	0.	0.	0.	9.47E-09	5.77E-10	3.43E-07
15 9.30 0.	0.	7.83E-11	0.	0.	0.	9.51E-09	5.76E-10	3.43E-07
16 9.20 0.	0.	9.44E-11	0.	0.	0.	9.54E-09	6.16E-10	3.43E-07
17 9.10 0.	0.	1.12E-10	0.	0.	0.	9.57E-09	6.36E-10	3.43E-07
18 9.00 0.	0.	1.31E-10	0.	0.	0.	9.61E-09	6.58E-10	3.43E-07
19 8.90 0.	0.	1.49E-10	0.	0.	0.	9.64E-09	6.80E-10	3.43E-07
20 8.80 0.	0.	1.54E-10	0.	0.	0.	9.68E-09	7.04E-10	3.43E-07
21 8.70 0.	0.	1.48E-10	0.	0.	0.	9.71E-09	7.29E-10	3.43E-07
22 8.60 0.	0.	1.43E-10	0.	0.	0.	9.75E-09	7.54E-10	3.43E-07
23 8.50 0.	0.	1.39E-10	0.	0.	0.	9.78E-09	7.81E-10	3.43E-07
24 8.40 0.	0.	1.36E-10	0.	0.	0.	9.83E-09	8.10E-10	3.43E-07
25 8.30 0.	0.	1.37E-10	0.	0.	0.	9.88E-09	8.40E-10	3.43E-07
26 8.20 0.	0.	1.34E-10	0.	0.	0.	9.94E-09	8.71E-10	3.43E-07
27 8.10 0.	0.	1.30E-10	0.	0.	0.	9.99E-09	9.04E-10	3.43E-07
28 8.00 0.	0.	1.26E-10	0.	0.	0.	1.00E-09	9.38E-10	3.43E-07
29 7.90 0.	0.	1.23E-10	0.	0.	0.	1.01E-09	9.74E-10	3.43E-07
30 7.80 0.	0.	1.19E-10	0.	0.	0.	1.01E-09	1.01E-09	3.43E-07
31 7.70 0.	0.	1.14E-10	0.	0.	0.	1.01E-09	1.01E-09	3.43E-07
32 7.60 0.	0.	1.09E-10	0.	0.	0.	1.02E-09	1.01E-09	3.43E-07
33 7.50 0.	0.	1.04E-10	0.	0.	0.	1.03E-09	1.01E-09	3.43E-07
34 7.40 0.	0.	9.84E-11	0.	0.	0.	1.04E-09	1.01E-09	3.43E-07
35 7.30 0.	0.	9.39E-11	0.	0.	0.	1.04E-09	1.01E-09	3.43E-07
36 7.20 0.	0.	8.86E-11	0.	0.	0.	1.05E-09	1.01E-09	3.43E-07
37 7.10 0.	0.	8.33E-11	0.	0.	0.	1.05E-09	1.01E-09	3.43E-07
38 7.00 0.	0.	7.71E-11	0.	0.	0.	1.06E-09	1.01E-09	3.43E-07
39 6.90 0.	0.	7.13E-11	0.	0.	0.	1.07E-09	1.01E-09	3.43E-07
40 6.80 0.	0.	6.50E-11	0.	0.	0.	1.08E-09	1.01E-09	3.43E-07
41 6.70 0.	0.	5.81E-11	0.	0.	0.	1.09E-09	1.01E-09	3.43E-07
42 6.60 0.	0.	5.06E-11	0.	0.	0.	1.10E-09	1.01E-09	3.43E-07
43 6.50 0.	0.	4.26E-11	0.	0.	0.	1.11E-09	1.01E-09	3.43E-07
44 6.40 0.	0.	3.40E-11	0.	0.	0.	1.12E-09	1.01E-09	3.43E-07
45 6.30 0.	0.	2.48E-11	0.	0.	0.	1.13E-09	1.01E-09	3.43E-07
46 6.20 0.	0.	1.56E-11	0.	0.	0.	1.14E-09	1.01E-09	3.43E-07
47 6.10 0.	0.	6.69E-12	0.	0.	0.	1.15E-09	1.01E-09	3.43E-07
48 6.00 0.	0.	1.59E-12	0.	0.	0.	1.16E-09	1.01E-09	3.43E-07
49 5.90 0.	0.	1.13E-13	0.	0.	0.	1.17E-09	1.01E-09	3.43E-07
50 5.80 0.	0.	2.78E-15	0.	0.	0.	1.18E-09	1.01E-09	3.43E-07
51 5.70 0.	0.	6.35E-12	0.	0.	0.	1.19E-09	1.01E-09	3.43E-07

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)
TEMPERATURE (DEGREES K) 10000. DENSITY (GM/CC) 1.293E-07 (10.0E-05 NORMAL)

PHOTON 02 S-R ENERGY BANDS	N2 1ST POS.	N2 2ND POS.	N2 1ST NEG.	N2 2ND NEG.	NO BETA	NO GAMMA	NO VIB-ROT	NO 2	0- PHOTO-DET (IONS)	FREE-FREE P.E.	N P.E.	0 P.E.	TOTAL AIR	
52	5.60	7.07E-12	0.	0.	2.79E-11	1.92E-10	0.	0.	9.49E-09	2.74E-09	1.08E-07	9.86E-08	2.19E-07	
53	5.50	6.15E-12	0.	0.	3.43E-11	1.84E-10	0.	0.	9.94E-09	2.90E-09	1.09E-07	9.94E-08	2.23E-07	
54	5.40	6.52E-12	0.	0.	2.92E-11	1.25E-10	0.	0.	10.00E-09	3.04E-09	1.11E-07	1.02E-07	2.24E-07	
55	5.30	6.10E-12	0.	0.	3.00E-11	1.25E-10	0.	0.	1.01E-08	3.24E-09	1.13E-07	1.04E-07	2.29E-07	
56	5.20	5.82E-12	0.	0.	3.12E-11	1.07E-10	0.	0.	1.01E-08	3.44E-09	1.15E-07	1.06E-07	2.35E-07	
57	5.10	5.41E-12	0.	0.	3.34E-11	1.46E-10	0.	0.	1.02E-08	3.64E-09	1.18E-07	1.08E-07	2.40E-07	
58	5.00	3.94E-12	0.	0.	2.67E-11	1.27E-10	0.	0.	1.03E-08	3.86E-09	1.21E-07	1.11E-07	2.46E-07	
59	4.90	3.32E-12	0.	0.	2.87E-11	1.24E-10	0.	0.	1.04E-08	4.10E-09	1.25E-07	1.13E-07	2.53E-07	
60	4.80	3.35E-12	0.	0.	3.02E-11	1.17E-10	0.	0.	1.05E-08	4.37E-09	1.28E-07	1.16E-07	2.59E-07	
61	4.70	3.56E-12	0.	0.	2.88E-11	1.00E-10	0.	0.	1.06E-08	4.65E-09	1.31E-07	1.19E-07	2.65E-07	
62	4.60	4.20E-12	0.	0.	2.80E-11	9.31E-11	0.	0.	1.06E-08	4.97E-09	1.34E-07	1.21E-07	2.73E-07	
63	4.50	4.24E-12	0.	0.	2.49E-11	6.45E-11	0.	0.	1.07E-08	5.31E-09	1.41E-07	1.24E-07	2.81E-07	
64	4.40	4.24E-12	0.	0.	2.43E-11	4.87E-11	0.	0.	1.08E-08	5.68E-09	1.48E-07	1.27E-07	2.90E-07	
65	4.30	3.86E-12	0.	0.	2.20E-11	2.77E-11	0.	0.	1.09E-08	6.09E-09	1.51E-07	1.30E-07	2.98E-07	
66	4.20	3.41E-12	0.	0.	2.28E-11	2.19E-11	0.	0.	1.10E-08	6.53E-09	1.56E-07	2.10E-07	3.06E-07	
67	4.10	3.07E-12	0.	0.	2.11E-11	5.66E-12	0.	0.	1.10E-08	7.03E-09	1.30E-07	2.24E-07	3.17E-07	
68	4.00	2.71E-12	0.	0.	1.96E-11	4.75E-12	0.	0.	1.11E-08	7.57E-09	1.34E-07	2.31E-07	3.26E-07	
69	3.90	2.38E-12	0.	0.	1.74E-11	1.84E-12	0.	0.	1.10E-08	8.17E-09	1.63E-07	2.34E-07	3.47E-07	
70	3.80	2.33E-12	0.	0.	2.50E-11	5.90E-11	0.	0.	1.10E-08	8.84E-09	1.07E-07	2.45E-07	3.57E-07	
71	3.70	1.92E-12	0.	0.	3.21E-11	1.42E-11	0.	0.	1.08E-08	9.58E-09	9.39E-08	2.75E-07	3.64E-07	
72	3.60	1.58E-12	0.	0.	1.70E-11	9.06E-11	0.	0.	1.01E-08	1.04E-08	1.93E-07	3.10E-07	3.64E-07	
73	3.50	1.48E-12	0.	0.	2.61E-11	2.71E-11	0.	0.	9.27E-09	1.13E-08	1.16E-07	3.47E-07	3.64E-07	
74	3.40	1.27E-12	0.	0.	1.31E-11	1.19E-11	0.	0.	5.34E-09	1.24E-08	1.31E-07	3.84E-07	3.90E-07	
75	3.30	9.84E-13	0.	0.	1.42E-11	1.15E-11	0.	0.	5.35E-09	1.35E-08	1.46E-07	4.24E-07	4.20E-07	
76	3.20	8.08E-13	0.	0.	8.09E-11	8.93E-12	0.	0.	5.36E-09	1.48E-08	1.61E-07	4.71E-07	4.50E-07	
77	3.10	7.35E-13	0.	0.	6.21E-11	3.25E-12	0.	0.	5.37E-09	1.63E-08	1.77E-07	5.13E-07	4.83E-07	
78	3.00	6.20E-13	0.	0.	3.50E-11	1.14E-11	0.	0.	5.39E-09	1.80E-08	1.92E-07	5.56E-07	5.13E-07	
79	2.90	4.88E-13	0.	0.	2.90E-11	7.04E-12	0.	0.	5.40E-09	2.00E-08	2.08E-07	5.99E-07	5.40E-07	
80	2.80	4.07E-13	0.	0.	9.01E-12	2.83E-12	0.	0.	5.40E-09	2.22E-08	2.25E-07	6.45E-07	5.70E-07	
81	2.70	2.96E-13	0.	0.	4.49E-12	5.57E-12	0.	0.	5.40E-09	2.48E-08	2.43E-07	6.93E-07	6.01E-07	
82	2.60	1.20E-13	0.	0.	2.29E-12	5.20E-12	0.	0.	5.40E-09	2.78E-08	2.63E-07	7.49E-07	6.32E-07	
83	2.50	8.02E-15	0.	0.	2.07E-13	4.04E-10	1.27E-14	0.	0.	5.40E-09	3.13E-08	1.49E-07	8.07E-07	6.62E-07
84	2.40	0.	0.	0.	1.67E-11	0.	0.	0.	5.40E-09	3.54E-08	1.85E-07	8.54E-07	6.94E-07	
85	2.30	0.	0.	0.	7.25E-11	0.	0.	0.	5.34E-09	4.03E-08	2.24E-07	9.24E-07	7.32E-07	
86	2.20	0.	0.	0.	1.57E-11	0.	0.	0.	5.36E-09	4.61E-08	2.65E-07	9.11E-07	7.68E-07	
87	2.10	0.	0.	0.	2.14E-11	0.	0.	0.	5.32E-09	5.30E-08	3.08E-07	9.99E-07	8.27E-07	
88	2.00	0.	0.	0.	3.60E-11	0.	0.	0.	5.15E-09	6.15E-08	3.52E-07	8.86E-07	8.48E-07	
89	1.90	0.	0.	0.	6.69E-11	0.	0.	0.	4.98E-09	7.10E-08	3.98E-07	7.77E-07	7.53E-07	
90	1.80	0.	0.	0.	5.44E-11	0.	0.	0.	4.74E-09	8.46E-08	4.69E-07	9.25E-07	6.51E-07	
91	1.70	0.	0.	0.	6.74E-11	0.	0.	0.	4.44E-09	1.01E-07	5.56E-07	1.11E-07	7.72E-07	
92	1.60	0.	0.	0.	4.61E-11	0.	0.	0.	5.77E-09	1.21E-07	6.42E-07	1.21E-07	8.49E-07	
93	1.50	0.	0.	0.	4.65E-11	0.	0.	0.	1.72E-09	1.47E-07	7.36E-07	1.47E-07	1.03E-06	
94	1.40	0.	0.	0.	5.75E-11	0.	0.	0.	0.	1.81E-07	8.71E-07	1.13E-07	1.46E-06	
95	1.30	0.	0.	0.	4.40E-11	0.	0.	0.	0.	2.27E-07	9.15E-07	1.61E-07	1.70E-06	
96	1.20	0.	0.	0.	4.02E-11	0.	0.	0.	0.	2.99E-07	1.10E-06	1.91E-07	1.59E-06	
97	1.10	0.	0.	0.	3.70E-11	0.	0.	0.	0.	3.78E-07	1.32E-06	2.44E-07	1.94E-06	
98	1.00	0.	0.	0.	3.45E-11	0.	0.	0.	0.	5.05E-07	1.60E-06	2.96E-07	2.40E-06	
99	0.90	0.	0.	0.	2.74E-11	0.	0.	0.	0.	4.95E-07	1.87E-06	3.44E-07	2.92E-06	
100	0.80	0.	0.	0.	1.29E-11	0.	0.	0.	0.	1.00E-06	2.11E-06	3.97E-07	3.50E-06	
101	0.70	0.	0.	0.	3.37E-11	0.	0.	0.	0.	1.51E-06	2.69E-06	3.21E-07	3.98E-06	
102	0.60	0.	0.	0.	2.34E-12	0.	0.	0.	0.	2.41E-06	2.08E-06	3.62E-07	4.45E-06	

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 10000.		DENSITY (GM/CC) 1.2932-00 (19.02-04 NORMAL)		NO		O- FREE-FREE		M		TOTAL AIR	
				2		PHOTO-DET (IONS)		P.E.		P.E.	
PHOTON 02 S-R	02 S-R	02 S-R	02 S-R	NO	NO	NO	NO	NO	NO	NO	NO
ENERGY BANDS	CONT.	NO. 1	NO. 2	BETA	GAMMA						
E.V.											
1 10.70 0.	0.	4.57E-11	0.	0.	0.	1.37E-10	2.10E-11	1.95E-00	4.74E-09	2.40E-00	0.
2 10.66 0.	0.	3.93E-11	0.	0.	0.	1.37E-10	2.29E-11	1.97E-00	4.74E-09	2.40E-00	0.
3 10.58 0.	0.	3.06E-11	0.	0.	0.	1.37E-10	2.31E-11	1.98E-00	4.74E-09	2.40E-00	0.
4 10.40 0.	0.	3.48E-11	0.	0.	0.	1.37E-10	2.30E-11	1.98E-00	4.73E-09	2.40E-00	0.
5 10.30 0.	0.	2.89E-11	0.	0.	0.	1.30E-10	2.52E-11	1.99E-00	4.73E-09	2.40E-00	0.
6 10.20 0.	0.	2.83E-11	0.	0.	0.	1.30E-10	2.52E-11	1.99E-00	4.73E-09	2.40E-00	0.
7 10.10 0.	0.	2.57E-11	0.	0.	0.	1.30E-10	2.60E-11	2.00E-00	4.72E-09	2.40E-00	0.
8 10.00 0.	0.	2.00E-11	0.	0.	0.	1.30E-10	2.60E-11	2.00E-00	4.72E-09	2.40E-00	0.
9 9.90 0.	0.	2.12E-11	0.	0.	0.	1.30E-10	2.70E-11	2.01E-00	4.71E-09	2.50E-00	0.
10 9.80 0.	0.	1.80E-11	0.	0.	0.	1.30E-10	2.84E-11	2.01E-00	4.71E-09	2.50E-00	0.
11 9.70 0.	0.	1.51E-11	0.	0.	0.	1.30E-10	2.93E-11	2.02E-00	4.71E-09	2.51E-00	0.
12 9.60 0.	0.	1.62E-11	0.	0.	0.	1.30E-10	3.03E-11	2.02E-00	4.70E-09	2.51E-00	0.
13 9.50 0.	1.70E-13	1.20E-11	0.	0.	0.	1.30E-10	3.12E-11	2.03E-00	4.70E-09	2.52E-00	0.
14 9.40 0.	2.41E-13	1.19E-11	0.	0.	0.	1.40E-10	3.12E-11	2.03E-00	4.70E-09	2.52E-00	0.
15 9.30 0.	3.03E-13	1.18E-11	0.	0.	0.	1.40E-10	3.23E-11	2.03E-00	4.69E-09	2.52E-00	0.
16 9.20 0.	3.06E-13	0.74E-12	0.	0.	0.	1.40E-10	3.45E-11	2.04E-00	4.69E-09	2.52E-00	0.
17 9.10 0.	4.30E-13	0.92E-12	0.	0.	0.	1.41E-10	3.45E-11	2.04E-00	4.69E-09	2.52E-00	0.
18 9.00 0.	5.07E-13	7.61E-12	0.	0.	0.	1.42E-10	3.60E-11	2.05E-00	4.68E-09	2.52E-00	0.
19 8.90 0.	5.70E-13	6.63E-12	0.	0.	0.	1.42E-10	3.60E-11	2.05E-00	4.68E-09	2.52E-00	0.
20 8.80 0.	5.97E-13	6.34E-12	0.	0.	0.	1.43E-10	3.93E-11	2.05E-00	4.67E-09	2.52E-00	0.
21 8.70 0.	5.70E-13	5.06E-12	0.	0.	0.	1.43E-10	4.07E-11	2.05E-00	4.67E-09	2.52E-00	0.
22 8.60 0.	5.53E-13	5.15E-12	0.	0.	0.	1.43E-10	4.22E-11	2.05E-00	4.67E-09	2.52E-00	0.
23 8.50 0.	5.40E-13	4.10E-12	0.	0.	0.	1.44E-10	4.37E-11	2.05E-00	4.66E-09	2.52E-00	0.
24 8.40 0.	5.35E-13	4.03E-12	0.	0.	0.	1.45E-10	4.51E-11	2.05E-00	4.66E-09	2.52E-00	0.
25 8.30 0.	5.30E-13	3.17E-12	0.	0.	0.	1.46E-10	4.60E-11	2.05E-00	4.66E-09	2.52E-00	0.
26 8.20 0.	5.19E-13	3.12E-12	0.	0.	0.	1.47E-10	4.87E-11	2.05E-00	4.65E-09	2.52E-00	0.
27 8.10 0.	5.06E-13	2.56E-12	0.	0.	0.	1.47E-10	5.09E-11	2.05E-00	4.65E-09	2.52E-00	0.
28 8.00 0.	4.89E-13	2.44E-12	0.	0.	0.	1.48E-10	5.24E-11	2.05E-00	4.65E-09	2.52E-00	0.
29 7.90 0.	4.79E-13	1.90E-12	0.	0.	0.	1.49E-10	5.45E-11	2.05E-00	4.65E-09	2.52E-00	0.
30 7.80 0.	4.61E-13	1.90E-12	0.	0.	0.	1.50E-10	5.60E-11	2.05E-00	4.65E-09	2.52E-00	0.
31 7.70 0.	4.43E-13	1.61E-12	0.	0.	0.	1.51E-10	5.80E-11	2.05E-00	4.65E-09	2.52E-00	0.
32 7.60 0.	4.22E-13	1.46E-12	0.	0.	0.	1.51E-10	6.12E-11	2.05E-00	4.65E-09	2.52E-00	0.
33 7.50 0.	4.01E-13	1.27E-12	0.	0.	0.	1.52E-10	6.37E-11	2.05E-00	4.65E-09	2.52E-00	0.
34 7.40 0.	3.80E-13	1.09E-12	0.	0.	0.	1.53E-10	6.63E-11	2.05E-00	4.65E-09	2.52E-00	0.
35 7.30 0.	3.64E-13	0.78E-12	0.	0.	0.	1.54E-10	6.91E-11	2.05E-00	4.65E-09	2.52E-00	0.
36 7.20 0.	3.43E-13	0.34E-12	0.	0.	0.	1.54E-10	7.20E-11	2.05E-00	4.65E-09	2.52E-00	0.
37 7.10 0.	3.22E-13	7.62E-13	0.	0.	0.	1.54E-10	7.51E-11	2.05E-00	4.65E-09	2.52E-00	0.
38 7.00 0.	3.00E-13	6.60E-13	0.	0.	0.	1.56E-10	7.84E-11	2.05E-00	4.65E-09	2.52E-00	0.
39 6.90 0.	2.77E-13	5.23E-13	0.	0.	0.	1.56E-10	8.19E-11	2.05E-00	4.65E-09	2.52E-00	0.
40 6.80 0.	2.53E-13	4.35E-13	0.	0.	0.	1.58E-10	8.56E-11	2.05E-00	4.65E-09	2.52E-00	0.
41 6.70 0.	2.29E-13	3.06E-13	0.	0.	0.	1.58E-10	8.95E-11	2.05E-00	4.65E-09	2.52E-00	0.
42 6.60 0.	2.05E-13	2.79E-13	0.	0.	0.	1.58E-10	9.36E-11	2.05E-00	4.65E-09	2.52E-00	0.
43 6.50 0.	1.79E-13	2.02E-13	0.	0.	0.	1.58E-10	9.80E-11	2.05E-00	4.65E-09	2.52E-00	0.
44 6.40 0.	1.56E-13	1.36E-13	0.	0.	0.	1.58E-10	1.03E-10	2.05E-00	4.65E-09	2.52E-00	0.
45 6.30 0.	1.36E-13	0.83E-13	0.	0.	0.	1.58E-10	1.08E-10	2.05E-00	4.65E-09	2.52E-00	0.
46 6.20 0.	1.16E-13	0.36E-13	0.	0.	0.	1.58E-10	1.13E-10	2.05E-00	4.65E-09	2.52E-00	0.
47 6.10 0.	9.35E-14	0.14E-13	0.	0.	0.	1.58E-10	1.18E-10	2.05E-00	4.65E-09	2.52E-00	0.
48 6.00 0.	6.89E-14	0.08E-13	0.	0.	0.	1.58E-10	1.23E-10	2.05E-00	4.65E-09	2.52E-00	0.
49 5.90 0.	4.40E-14	0.01E-13	0.	0.	0.	1.58E-10	1.28E-10	2.05E-00	4.65E-09	2.52E-00	0.
50 5.80 0.	2.41E-14	0.00E-13	0.	0.	0.	1.58E-10	1.33E-10	2.05E-00	4.65E-09	2.52E-00	0.
51 5.70 0.	2.47E-14	0.00E-13	0.	0.	0.	1.58E-10	1.38E-10	2.05E-00	4.65E-09	2.52E-00	0.

TEMPERATURE (DEGREES K) 1000. DENSITY (GM/CC) 1.293E-08 (10.0E-06 NORMAL)

PHOTON QZ 5-M ENERGY BANDS	1ST POS.	M2 POS.	M2 POS.	1ST NEG.	M2 POS.	M2 POS.	NO RETA	NO GAMMA	WID-ROT	NO 2	O- PHOTO-DET (IONS)	FREE-FREE N	P.E.	TOTAL A1	
52	5.50	3.07E-14	0.	0.	0.	0.	9.52E-14	0.57E-13	0.	0.	1.40E-10	1.93E-10	5.90E-09	6.14E-09	1.74E-08
53	5.50	3.10E-14	0.	0.	0.	0.	1.17E-13	0.29E-13	0.	0.	1.47E-10	1.47E-10	5.90E-09	6.25E-09	1.25E-08
54	5.50	3.32E-14	0.	0.	0.	0.	9.95E-14	0.25E-13	0.	0.	1.47E-10	1.77E-10	6.08E-09	6.36E-09	1.28E-08
55	5.50	3.19E-14	0.	0.	0.	0.	1.00E-13	0.16E-13	0.	0.	1.40E-10	1.81E-10	6.16E-09	6.47E-09	1.30E-08
56	5.50	2.27E-14	0.	0.	0.	0.	1.00E-13	0.36E-13	0.	0.	1.49E-10	1.92E-10	6.26E-09	6.62E-09	1.32E-08
57	5.50	2.11E-14	0.	0.	0.	0.	1.03E-13	0.47E-13	0.	0.	1.51E-10	2.01E-10	6.55E-09	6.77E-09	1.16E-08
58	5.50	1.59E-14	0.	0.	0.	0.	9.11E-14	0.33E-13	0.	0.	1.52E-10	2.16E-10	6.62E-09	6.92E-09	1.19E-08
59	4.90	1.30E-14	0.	0.	0.	0.	9.00E-14	0.36E-13	0.	0.	1.57E-10	2.29E-10	6.81E-09	7.07E-09	1.13E-08
60	4.80	1.30E-14	0.	0.	0.	0.	1.03E-13	0.40E-13	0.	0.	1.54E-10	2.44E-10	7.10E-09	7.25E-09	1.40E-08
61	4.70	1.39E-14	0.	0.	0.	0.	9.88E-14	0.41E-13	0.	0.	1.50E-10	2.40E-10	7.10E-09	7.40E-09	1.50E-08
62	4.60	1.64E-14	0.	0.	0.	0.	9.81E-14	0.27E-13	0.	0.	1.57E-10	2.77E-10	7.41E-09	7.59E-09	1.54E-08
63	4.50	1.64E-14	0.	0.	0.	0.	9.50E-14	0.27E-13	0.	0.	1.50E-10	2.91E-10	7.67E-09	7.77E-09	1.59E-08
64	4.40	1.69E-14	0.	0.	0.	0.	8.44E-14	0.16E-13	0.	0.	1.48E-10	3.17E-10	7.96E-09	7.95E-09	1.44E-08
65	4.30	1.49E-14	0.	0.	0.	0.	7.51E-14	0.47E-14	0.	0.	1.41E-10	3.40E-10	8.25E-09	8.12E-09	1.49E-08
66	4.20	1.35E-14	0.	0.	0.	0.	6.41E-13	0.77E-14	0.	0.	1.62E-10	3.69E-10	8.55E-09	1.38E-09	1.44E-08
67	4.10	1.20E-14	0.	0.	0.	0.	2.95E-13	0.27E-13	0.	0.	1.63E-10	3.93E-10	8.71E-09	1.40E-09	9.03E-09
68	4.00	1.06E-14	0.	0.	0.	0.	1.18E-12	0.14E-13	0.	0.	1.43E-10	4.26E-10	9.05E-09	1.44E-09	7.48E-09
69	3.90	0.40E-15	0.	0.	0.	0.	5.24E-13	0.73E-14	0.	0.	1.63E-10	4.57E-10	9.34E-09	1.40E-09	7.75E-09
70	3.80	0.07E-15	0.	0.	0.	0.	7.45E-13	0.75E-14	0.	0.	1.63E-10	4.90E-10	9.82E-09	1.53E-09	8.90E-09
71	3.70	7.40E-15	0.	0.	0.	0.	9.57E-13	1.79E-11	0.	0.	1.60E-10	5.35E-10	1.13E-09	1.72E-09	7.56E-09
72	3.60	0.40E-15	0.	0.	0.	0.	5.06E-13	1.14E-10	0.	0.	1.49E-10	5.81E-10	1.24E-09	1.94E-09	8.42E-09
73	3.50	5.70E-15	0.	0.	0.	0.	7.77E-13	3.42E-10	0.	0.	1.37E-10	6.30E-10	1.36E-09	2.17E-09	9.40E-09
74	3.40	0.90E-15	0.	0.	0.	0.	3.91E-13	2.03E-11	0.	0.	7.89E-11	6.91E-10	1.71E-09	2.42E-09	1.04E-08
75	3.30	3.80E-15	0.	0.	0.	0.	4.24E-13	2.99E-11	0.	0.	7.90E-11	7.50E-10	1.79E-09	2.67E-09	1.16E-08
76	3.20	3.15E-15	0.	0.	0.	0.	2.61E-13	3.67E-10	0.	0.	7.93E-11	8.25E-10	1.82E-09	2.94E-09	1.30E-08
77	3.10	2.85E-15	0.	0.	0.	0.	1.05E-13	4.10E-11	0.	0.	7.95E-11	8.76E-10	1.86E-09	3.21E-09	1.39E-08
78	3.00	2.42E-15	0.	0.	0.	0.	1.80E-13	1.40E-10	0.	0.	7.95E-11	1.36E-09	1.85E-09	3.47E-09	1.52E-08
79	2.90	1.90E-15	0.	0.	0.	0.	6.22E-14	9.43E-11	0.	0.	7.96E-11	1.45E-09	1.88E-09	3.74E-09	1.64E-08
80	2.80	1.90E-15	0.	0.	0.	0.	2.92E-14	3.56E-11	0.	0.	7.96E-11	1.54E-09	1.93E-09	4.03E-09	1.77E-08
81	2.70	1.1E-15	0.	0.	0.	0.	1.34E-14	7.03E-11	0.	0.	7.98E-11	1.59E-09	1.93E-09	4.44E-09	1.93E-08
82	2.60	0.67E-15	0.	0.	0.	0.	6.83E-15	5.56E-12	0.	0.	7.98E-11	1.59E-09	1.92E-09	4.80E-09	2.10E-08
83	2.50	3.12E-17	0.	0.	0.	0.	8.37E-16	5.10E-12	0.	0.	7.98E-11	1.59E-09	1.92E-09	5.16E-09	2.29E-08
84	2.40	0.	0.	0.	0.	0.	4.97E-14	4.32E-12	0.	0.	7.98E-11	1.59E-09	1.92E-09	5.52E-09	2.48E-08
85	2.30	0.	0.	0.	0.	0.	2.14E-13	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	5.88E-09	2.67E-08
86	2.20	0.	0.	0.	0.	0.	4.67E-13	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	6.24E-09	2.86E-08
87	2.10	0.	0.	0.	0.	0.	6.41E-13	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	6.60E-09	3.05E-08
88	2.00	0.	0.	0.	0.	0.	1.97E-12	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	6.96E-09	3.24E-08
89	1.90	0.	0.	0.	0.	0.	1.69E-12	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	7.32E-09	3.43E-08
90	1.80	0.	0.	0.	0.	0.	1.42E-12	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	7.68E-09	3.62E-08
91	1.70	0.	0.	0.	0.	0.	1.14E-12	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	8.04E-09	3.81E-08
92	1.60	0.	0.	0.	0.	0.	9.17E-13	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	8.40E-09	4.00E-08
93	1.50	0.	0.	0.	0.	0.	6.90E-13	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	8.76E-09	4.19E-08
94	1.40	0.	0.	0.	0.	0.	4.63E-13	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	9.12E-09	4.38E-08
95	1.30	0.	0.	0.	0.	0.	2.36E-13	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	9.48E-09	4.57E-08
96	1.20	0.	0.	0.	0.	0.	1.09E-12	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	9.84E-09	4.76E-08
97	1.10	0.	0.	0.	0.	0.	8.67E-13	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	1.02E-08	4.95E-08
98	1.00	0.	0.	0.	0.	0.	6.40E-13	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	1.06E-08	5.14E-08
99	0.90	0.	0.	0.	0.	0.	4.13E-13	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	1.10E-08	5.33E-08
100	0.80	0.	0.	0.	0.	0.	1.86E-13	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	1.14E-08	5.52E-08
101	0.70	0.	0.	0.	0.	0.	9.37E-14	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	1.18E-08	5.71E-08
102	0.60	0.	0.	0.	0.	0.	7.10E-14	0.	0.	0.	7.98E-11	1.59E-09	1.92E-09	1.22E-08	5.90E-08

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) : 1900.									
DENSITY (GM/CC) 1.293E-09 (10.0E-07 NORMAL)									
PHOTON ENERGY E.V.	O2 S-B BANDS	O2 S-B CONT.	N2 S-B NO. 1	NO BETA	NO GAMMA	NO 2	O- PHOTO-BET (100S)	O- FREE-EE (M)	TOTAL AIR P.E.
1 10.70 0.	9.	2.98E-14	8.	0.	0.	0.	3.85E-13	5.33E-13	4.64E-10
2 10.60 0.	8.	2.28E-14	8.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
3 10.50 0.	8.	2.17E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
4 10.40 0.	0.	1.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
5 10.30 0.	0.	1.61E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
6 10.20 0.	0.	1.40E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
7 10.10 0.	0.	1.40E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
8 10.00 0.	0.	1.18E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
9 9.90 0.	0.	1.18E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
10 9.80 0.	0.	1.06E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
11 9.70 0.	0.	0.92E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
12 9.60 0.	0.	0.92E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
13 9.50 0.	0.	1.35E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
14 9.40 0.	0.	1.06E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
15 9.30 0.	0.	2.20E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
16 9.20 0.	0.	2.72E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
17 9.10 0.	0.	3.24E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
18 9.00 0.	0.	3.77E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
19 8.90 0.	0.	4.30E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
20 8.80 0.	0.	4.82E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
21 8.70 0.	0.	4.82E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
22 8.60 0.	0.	4.82E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
23 8.50 0.	0.	4.82E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
24 8.40 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
25 8.30 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
26 8.20 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
27 8.10 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
28 8.00 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
29 7.90 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
30 7.80 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
31 7.70 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
32 7.60 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
33 7.50 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
34 7.40 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
35 7.30 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
36 7.20 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
37 7.10 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
38 7.00 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
39 6.90 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
40 6.80 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
41 6.70 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
42 6.60 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
43 6.50 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
44 6.40 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
45 6.30 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
46 6.20 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
47 6.10 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
48 6.00 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
49 5.90 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
50 5.80 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10
51 5.70 0.	0.	3.99E-14	0.	0.	0.	0.	3.85E-13	5.49E-13	4.67E-10

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-02 (1.0E 01 NORMAL)		0		FREE-FREE		0		TOTAL AIR	
NO. 1		NO. 2		NO. 3		NO. 4		NO. 5		NO. 6		NO. 7	
PHOTON O2 S-R		PHOTO-DET (IONS)		P.E.		P.E.		P.E.		P.E.		P.E.	
E.V.		E.V.		E.V.		E.V.		E.V.		E.V.		E.V.	
O2 S-R		O2 S-R		O2 S-R		O2 S-R		O2 S-R		O2 S-R		O2 S-R	
CONT.		CONT.		CONT.		CONT.		CONT.		CONT.		CONT.	
E.V.		E.V.		E.V.		E.V.		E.V.		E.V.		E.V.	
1 10.70 0.	0.	2.39E 01	0.	0.	0.	0.74E-01	3.10E-04	5.00E 01	2.50E-02	7.65E 01	0.	0.	0.
2 10.60 0.	0.	2.24E 01	0.	0.	0.	0.74E-01	3.10E-04	7.32E-02	2.50E-02	2.32E 01	0.	0.	0.
3 10.50 0.	0.	2.21E 01	0.	0.	0.	0.74E-01	3.10E-04	7.34E-02	2.50E-02	2.20E 01	0.	0.	0.
4 10.40 0.	0.	2.01E 01	0.	0.	0.	0.74E-01	3.10E-04	7.30E-02	2.49E-02	2.00E 01	0.	0.	0.
5 10.30 0.	0.	1.97E 01	0.	0.	0.	0.74E-01	3.10E-04	7.41E-02	2.49E-02	1.75E 01	0.	0.	0.
6 10.20 0.	0.	1.88E 01	0.	0.	0.	0.74E-01	3.10E-04	7.43E-02	2.48E-02	1.74E 01	0.	0.	0.
7 10.10 0.	0.	1.53E 01	0.	0.	0.	0.74E-01	3.10E-04	7.44E-02	2.48E-02	1.61E 01	0.	0.	0.
8 10.00 0.	0.	1.27E 01	0.	0.	0.	0.74E-01	3.10E-04	7.40E-02	2.48E-02	1.35E 01	0.	0.	0.
9 9.90 0.	0.	1.16E 01	0.	0.	0.	0.74E-01	3.10E-04	7.58E-02	2.47E-02	1.24E 01	0.	0.	0.
10 9.80 0.	0.	9.48E 00	0.	0.	0.	0.74E-01	3.10E-04	7.52E-02	2.47E-02	1.02E 01	0.	0.	0.
11 9.70 0.	0.	1.02E 01	0.	0.	0.	0.74E-01	3.10E-04	7.54E-02	2.46E-02	1.89E 01	0.	0.	0.
12 9.60 0.	0.	8.18E 00	0.	0.	0.	0.74E-01	3.10E-04	7.54E-02	2.46E-02	8.94E 00	0.	0.	0.
13 9.50 0.	0.	7.40E 00	0.	0.	0.	0.74E-01	3.10E-04	7.50E-02	2.46E-02	8.19E 00	0.	0.	0.
14 9.40 0.	0.	7.49E 00	0.	0.	0.	0.74E-01	3.10E-04	7.60E-02	2.45E-02	8.20E 00	0.	0.	0.
15 9.30 0.	0.	5.75E 00	0.	0.	0.	0.74E-01	3.10E-04	7.62E-02	2.45E-02	6.55E 00	0.	0.	0.
16 9.20 0.	0.	5.48E 00	0.	0.	0.	0.74E-01	3.10E-04	7.18E-02	2.45E-02	6.42E 00	0.	0.	0.
17 9.10 0.	0.	5.09E 00	0.	0.	0.	0.74E-01	3.10E-04	7.10E-02	2.44E-02	5.84E 00	0.	0.	0.
18 9.00 0.	0.	4.90E 00	0.	0.	0.	0.74E-01	3.10E-04	7.17E-02	2.44E-02	5.24E 00	0.	0.	0.
19 8.90 0.	0.	4.32E 00	0.	0.	0.	0.74E-01	3.10E-04	7.17E-02	2.44E-02	5.07E 00	0.	0.	0.
20 8.80 0.	0.	3.52E 00	0.	0.	0.	0.74E-01	3.10E-04	7.17E-02	2.43E-02	4.27E 00	0.	0.	0.
21 8.70 0.	0.	3.58E 00	0.	0.	0.	0.74E-01	3.10E-04	7.16E-02	2.43E-02	4.33E 00	0.	0.	0.
22 8.60 0.	0.	2.95E 00	0.	0.	0.	0.74E-01	3.10E-04	7.16E-02	2.43E-02	3.78E 00	0.	0.	0.
23 8.50 0.	0.	2.86E 00	0.	0.	0.	0.74E-01	3.10E-04	7.16E-02	2.42E-02	3.63E 00	0.	0.	0.
24 8.40 0.	0.	2.29E 00	0.	0.	0.	0.74E-01	3.10E-04	7.16E-02	2.43E-02	3.05E 00	0.	0.	0.
25 8.30 0.	0.	2.27E 00	0.	0.	0.	0.74E-01	3.10E-04	7.16E-02	2.44E-02	3.04E 00	0.	0.	0.
26 8.20 0.	0.	1.89E 00	0.	0.	0.	0.74E-01	3.10E-04	7.15E-02	2.46E-02	2.62E 00	0.	0.	0.
27 8.10 0.	0.	1.81E 00	0.	0.	0.	0.74E-01	3.10E-04	7.15E-02	2.46E-02	2.59E 00	0.	0.	0.
28 8.00 0.	0.	1.48E 00	0.	0.	0.	0.74E-01	3.10E-04	7.15E-02	2.46E-02	2.20E 00	0.	0.	0.
29 7.90 0.	0.	1.49E 00	0.	0.	0.	0.74E-01	3.10E-04	7.15E-02	2.51E-02	2.20E 00	0.	0.	0.
30 7.80 0.	0.	1.24E 00	0.	0.	0.	0.74E-01	3.10E-04	7.15E-02	2.53E-02	2.03E 00	0.	0.	0.
31 7.70 0.	0.	1.14E 00	0.	0.	0.	0.74E-01	3.10E-04	7.16E-02	2.55E-02	1.93E 00	0.	0.	0.
32 7.60 0.	0.	1.06E 00	0.	0.	0.	0.74E-01	3.10E-04	7.16E-02	2.57E-02	1.80E 00	0.	0.	0.
33 7.50 0.	0.	8.67E-01	0.	0.	0.	0.74E-01	3.10E-04	7.16E-02	2.58E-02	1.67E 00	0.	0.	0.
34 7.40 0.	0.	7.88E-01	0.	0.	0.	0.74E-01	3.10E-04	7.16E-02	2.60E-02	1.61E 00	0.	0.	0.
35 7.30 0.	0.	6.51E-01	0.	0.	0.	0.74E-01	3.10E-04	7.16E-02	2.62E-02	1.53E 00	0.	0.	0.
36 7.20 0.	0.	5.11E-01	0.	0.	0.	0.74E-01	3.10E-04	7.16E-02	2.64E-02	1.55E 00	0.	0.	0.
37 7.10 0.	0.	4.95E-01	0.	0.	0.	0.74E-01	3.10E-04	7.17E-02	2.64E-02	1.44E 00	0.	0.	0.
38 7.00 0.	0.	4.95E-01	0.	0.	0.	0.74E-01	3.10E-04	7.17E-02	2.67E-02	1.59E 00	0.	0.	0.
39 6.90 0.	0.	3.72E-01	0.	0.	0.	0.74E-01	3.10E-04	7.17E-02	2.71E-02	1.49E 00	0.	0.	0.
40 6.80 0.	0.	3.10E-01	0.	0.	0.	0.74E-01	3.10E-04	7.18E-02	2.73E-02	1.59E 00	0.	0.	0.
41 6.70 0.	0.	2.99E-01	0.	0.	0.	0.74E-01	3.10E-04	7.18E-02	2.75E-02	1.44E 00	0.	0.	0.
42 6.60 0.	0.	1.52E-01	0.	0.	0.	0.74E-01	3.10E-04	7.20E-02	2.77E-02	1.45E 00	0.	0.	0.
43 6.50 0.	0.	8.68E-02	0.	0.	0.	0.74E-01	3.10E-04	7.21E-02	2.80E-02	1.42E 00	0.	0.	0.
44 6.40 0.	0.	4.35E-02	0.	0.	0.	0.74E-01	3.10E-04	7.23E-02	2.80E-02	1.42E 00	0.	0.	0.
45 6.30 0.	0.	1.93E-02	0.	0.	0.	0.74E-01	3.10E-04	7.23E-02	2.80E-02	1.42E 00	0.	0.	0.
46 6.20 0.	0.	1.93E-02	0.	0.	0.	0.74E-01	3.10E-04	7.23E-02	2.80E-02	1.42E 00	0.	0.	0.
47 6.10 0.	0.	1.93E-02	0.	0.	0.	0.74E-01	3.10E-04	7.23E-02	2.80E-02	1.42E 00	0.	0.	0.
48 6.00 0.	0.	1.93E-02	0.	0.	0.	0.74E-01	3.10E-04	7.23E-02	2.80E-02	1.42E 00	0.	0.	0.
49 5.90 0.	0.	1.93E-02	0.	0.	0.	0.74E-01	3.10E-04	7.23E-02	2.80E-02	1.42E 00	0.	0.	0.
50 5.80 0.	0.	1.93E-02	0.	0.	0.	0.74E-01	3.10E-04	7.23E-02	2.80E-02	1.42E 00	0.	0.	0.
51 5.70 0.	0.	1.93E-02	0.	0.	0.	0.74E-01	3.10E-04	7.23E-02	2.80E-02	1.42E 00	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R ENERGY BANDS		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-02 (1.0E 01 NORMA()		D- PHOTO-DET (IONS)		FREE-FREE P.E.		Q P.F.		TOTAL AIR	
1ST POS.	2ND POS.	M2 1ST NEG.	M2 2ND NEG.	BETA	NO GAMMA	NO VIB-RNT	NO 2	NO PHOTO-DET (IONS)	FREE-FREE P.E.	Q P.F.	TOTAL AIR				
52	5.60	5.58E-02	0.	0.	9.58E-02	6.47E-01	0.	7.19E-01	2.10E-03	2.37E-02	3.11E-02	1.58E 00			
53	5.50	5.79E-02	0.	0.	1.17E-01	6.15E-01	0.	7.23E-01	2.30E-03	2.41E-02	3.16E-02	1.57E 00			
54	5.40	6.08E-02	0.	0.	1.01E-01	4.34E-01	0.	7.27E-01	2.43E-03	2.45E-02	3.21E-02	1.56E 00			
55	5.30	5.07E-02	0.	0.	1.04E-01	6.09E-01	0.	7.31E-01	2.57E-03	2.50E-02	3.26E-02	1.56E 00			
56	5.20	4.29E-02	0.	0.	1.09E-01	3.80E-01	0.	7.36E-01	2.72E-03	2.55E-02	3.34E-02	1.53E 00			
57	5.10	3.98E-02	0.	0.	1.07E-01	5.10E-01	0.	7.42E-01	2.89E-03	2.62E-02	3.41E-02	1.46E 00			
58	5.00	2.95E-02	0.	0.	9.46E-02	4.50E-01	0.	7.48E-01	3.06E-03	2.68E-02	3.48E-02	1.30E 00			
59	4.90	2.47E-02	0.	0.	1.04E-01	4.82E-01	0.	7.55E-01	3.26E-03	2.77E-02	3.56E-02	1.41E 00			
60	4.80	2.46E-02	0.	0.	1.09E-01	4.25E-01	0.	7.61E-01	3.46E-03	2.85E-02	3.63E-02	1.34E 00			
61	4.70	2.07E-02	0.	0.	1.05E-01	3.69E-01	0.	7.67E-01	3.66E-03	2.93E-02	3.72E-02	1.25E 00			
62	4.60	3.14E-02	0.	0.	1.08E-01	3.41E-01	0.	7.73E-01	3.94E-03	3.03E-02	3.81E-02	1.12E 00			
63	4.50	3.19E-02	0.	2.34E-02	9.13E-02	2.47E-01	0.	7.80E-01	4.21E-03	3.15E-02	3.91E-02	1.25E 00			
64	4.40	3.24E-02	0.	6.09E-02	9.03E-02	1.79E-01	0.	7.86E-01	4.51E-03	3.27E-02	4.00E-02	1.25E 00			
65	4.30	2.96E-02	0.	2.18E-01	8.25E-02	1.84E-01	0.	7.92E-01	4.83E-03	3.40E-02	4.10E-02	1.10E 00			
66	4.20	2.60E-02	0.	6.14E-01	8.25E-02	1.84E-01	0.	7.98E-01	5.19E-03	3.52E-02	4.19E-02	1.09E 00			
67	4.10	2.43E-02	0.	2.79E-01	8.04E-02	2.10E-02	0.	8.04E-01	5.58E-03	3.65E-02	4.27E-02	1.29E 00			
68	4.00	2.17E-02	0.	1.15E 00	7.52E-02	1.61E-02	0.	8.11E-01	5.98E-03	3.78E-02	4.35E-02	1.22E 00			
69	3.90	1.76E-02	0.	5.12E-01	6.54E-02	6.73E-03	0.	8.18E-01	6.40E-03	3.90E-02	4.43E-02	1.46E 00			
70	3.80	1.89E-02	0.	7.51E-01	5.34E-02	6.95E-02	0.	8.25E-01	6.83E-03	4.02E-02	4.51E-02	1.46E 00			
71	3.70	1.55E-02	0.	9.28E-01	4.45E-02	5.49E-02	0.	8.32E-01	7.28E-03	4.15E-02	4.59E-02	1.46E 00			
72	3.60	1.38E-02	0.	7.18E-01	3.45E-02	5.97E-02	0.	8.39E-01	7.74E-03	4.28E-02	4.67E-02	1.46E 00			
73	3.50	1.24E-02	0.	4.08E-01	2.45E-02	4.58E-02	0.	8.46E-01	8.21E-03	4.41E-02	4.75E-02	1.46E 00			
74	3.40	1.09E-02	0.	4.35E-01	1.45E-02	4.80E-02	0.	8.53E-01	8.68E-03	4.54E-02	4.83E-02	1.46E 00			
75	3.30	8.49E-03	0.	2.59E-01	1.10E-01	3.65E-02	0.	8.60E-01	9.15E-03	4.67E-02	4.91E-02	1.46E 00			
76	3.20	7.03E-03	0.	2.59E-01	2.54E-01	3.73E-02	0.	8.67E-01	9.62E-03	4.80E-02	4.99E-02	1.46E 00			
77	3.10	6.47E-03	0.	1.94E-01	3.30E-02	3.37E-02	0.	8.74E-01	1.01E-02	4.93E-02	5.07E-02	1.46E 00			
78	3.00	5.53E-03	0.	1.13E-01	1.09E-01	3.02E-02	0.	8.81E-01	1.10E-02	5.06E-02	5.15E-02	1.46E 00			
79	2.90	4.44E-03	0.	6.79E-02	8.84E-02	2.14E-02	0.	8.88E-01	1.19E-02	5.19E-02	5.23E-02	1.46E 00			
80	2.80	4.44E-03	0.	3.22E-02	2.91E-02	1.34E-02	0.	8.95E-01	1.28E-02	5.32E-02	5.31E-02	1.46E 00			
81	2.70	2.68E-03	0.	1.48E-02	5.30E-02	6.65E-03	0.	9.02E-01	1.37E-02	5.45E-02	5.39E-02	1.46E 00			
82	2.60	1.14E-03	0.	7.49E-03	4.95E-03	2.68E-03	0.	9.09E-01	1.46E-02	5.58E-02	5.47E-02	1.46E 00			
83	2.50	7.74E-04	0.	9.10E-04	4.05E-03	6.05E-04	0.	9.16E-01	1.55E-02	5.71E-02	5.55E-02	1.46E 00			
84	2.40	0.	5.01E-02	0.	4.22E-03	6.19E-05	0.	9.23E-01	1.64E-02	5.84E-02	5.63E-02	1.46E 00			
85	2.30	0.	2.85E-01	0.	0.	0.	0.	9.30E-01	1.73E-02	5.97E-02	5.71E-02	1.46E 00			
86	2.20	0.	4.58E-01	0.	0.	0.	0.	9.37E-01	1.82E-02	6.10E-02	5.79E-02	1.46E 00			
87	2.10	0.	5.96E-01	0.	0.	0.	0.	9.44E-01	1.91E-02	6.23E-02	5.87E-02	1.46E 00			
88	2.00	0.	1.05E 00	0.	0.	0.	0.	9.51E-01	2.00E-02	6.36E-02	5.95E-02	1.46E 00			
89	1.90	0.	1.76E 00	0.	0.	0.	0.	9.58E-01	2.09E-02	6.49E-02	6.03E-02	1.46E 00			
90	1.80	0.	1.43E 00	0.	0.	0.	0.	9.65E-01	2.18E-02	6.62E-02	6.11E-02	1.46E 00			
91	1.70	0.	1.73E 00	0.	0.	0.	0.	9.72E-01	2.27E-02	6.75E-02	6.19E-02	1.46E 00			
92	1.60	0.	1.22E 00	0.	0.	0.	0.	9.79E-01	2.36E-02	6.88E-02	6.27E-02	1.46E 00			
93	1.50	0.	1.44E 00	0.	0.	0.	0.	9.86E-01	2.45E-02	7.01E-02	6.35E-02	1.46E 00			
94	1.40	0.	1.53E 00	0.	0.	0.	0.	9.93E-01	2.54E-02	7.14E-02	6.43E-02	1.46E 00			
95	1.30	0.	1.15E 00	0.	0.	0.	0.	1.00E-01	2.63E-02	7.27E-02	6.51E-02	1.46E 00			
96	1.20	0.	1.15E 00	0.	0.	0.	0.	1.01E-01	2.72E-02	7.40E-02	6.59E-02	1.46E 00			
97	1.10	0.	9.04E-01	0.	0.	0.	0.	1.02E-01	2.81E-02	7.53E-02	6.67E-02	1.46E 00			
98	1.00	0.	7.37E-01	0.	0.	0.	0.	1.03E-01	2.90E-02	7.66E-02	6.75E-02	1.46E 00			
99	0.90	0.	3.45E-01	0.	0.	0.	0.	1.04E-01	2.99E-02	7.79E-02	6.83E-02	1.46E 00			
100	0.80	0.	8.01E-02	0.	0.	0.	0.	1.05E-01	3.08E-02	7.92E-02	6.91E-02	1.46E 00			
101	0.70	0.	0.	0.	0.	0.	0.	1.06E-01	3.17E-02	8.05E-02	7.00E-02	1.46E 00			
102	0.60	0.	7.55E-03	0.	0.	0.	0.	1.07E-01	3.26E-02	8.18E-02	7.08E-02	1.46E 00			

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-03 (10.0E-01 NORMAL)		D- PHOTO-DET (10MS)		FREE-FREE P.F.		TOTAL AIR P.F.	
NO	BETA	NO	GAMMA	NO	BETA	NO	BETA	NO	BETA	NO	BETA
1	10.70 0.	7.61E-01	0.	0.	0.	2.13E-02	2.56E-05	0.66E-00	2.64E-03	9.30E-01	0.
2	10.60 0.	6.63E-01	0.	0.	0.	2.13E-02	2.64E-05	0.66E-00	2.64E-03	9.30E-01	0.
3	10.50 0.	6.52E-01	0.	0.	0.	2.14E-02	2.71E-05	1.26E-02	2.68E-03	9.30E-01	0.
4	10.40 0.	5.93E-01	0.	0.	0.	2.14E-02	2.80E-05	1.27E-02	2.68E-03	9.30E-01	0.
5	10.30 0.	4.94E-01	0.	0.	0.	2.14E-02	2.80E-05	1.27E-02	2.68E-03	9.30E-01	0.
6	10.20 0.	4.90E-01	0.	0.	0.	2.15E-02	2.89E-05	1.28E-02	2.67E-03	9.30E-01	0.
7	10.10 0.	4.93E-01	0.	0.	0.	2.15E-02	2.89E-05	1.28E-02	2.67E-03	9.30E-01	0.
8	10.00 0.	3.79E-01	0.	0.	0.	2.15E-02	2.89E-05	1.28E-02	2.67E-03	9.30E-01	0.
9	9.90 0.	3.80E-01	0.	0.	0.	2.16E-02	2.94E-05	1.29E-02	2.66E-03	9.30E-01	0.
10	9.80 0.	3.49E-01	0.	0.	0.	2.16E-02	2.94E-05	1.29E-02	2.66E-03	9.30E-01	0.
11	9.70 0.	3.70E-01	0.	0.	0.	2.16E-02	2.94E-05	1.29E-02	2.66E-03	9.30E-01	0.
12	9.60 0.	3.00E-01	0.	0.	0.	2.17E-02	3.09E-05	1.30E-02	2.65E-03	9.30E-01	0.
13	9.50 0.	2.41E-01	0.	0.	0.	2.17E-02	3.09E-05	1.30E-02	2.65E-03	9.30E-01	0.
14	9.40 0.	2.19E-01	0.	0.	0.	2.18E-02	3.17E-05	1.30E-02	2.64E-03	9.30E-01	0.
15	9.30 0.	2.21E-01	0.	0.	0.	2.18E-02	3.17E-05	1.31E-02	2.63E-03	9.30E-01	0.
16	9.20 0.	1.70E-01	0.	0.	0.	2.20E-02	3.40E-05	1.31E-02	2.63E-03	9.30E-01	0.
17	9.10 0.	1.74E-01	0.	0.	0.	2.20E-02	3.40E-05	1.31E-02	2.63E-03	9.30E-01	0.
18	9.00 0.	1.50E-01	0.	0.	0.	2.21E-02	3.42E-05	1.31E-02	2.62E-03	9.30E-01	0.
19	8.90 0.	1.34E-01	0.	0.	0.	2.22E-02	3.47E-05	1.31E-02	2.62E-03	9.30E-01	0.
20	8.80 0.	1.20E-01	0.	0.	0.	2.23E-02	3.47E-05	1.31E-02	2.62E-03	9.30E-01	0.
21	8.70 0.	1.04E-01	0.	0.	0.	2.23E-02	3.47E-05	1.31E-02	2.62E-03	9.30E-01	0.
22	8.60 0.	1.00E-01	0.	0.	0.	2.24E-02	3.49E-05	1.31E-02	2.61E-03	9.30E-01	0.
23	8.50 0.	8.70E-02	0.	0.	0.	2.24E-02	3.49E-05	1.31E-02	2.61E-03	9.30E-01	0.
24	8.40 0.	8.46E-02	0.	0.	0.	2.24E-02	3.49E-05	1.31E-02	2.61E-03	9.30E-01	0.
25	8.30 0.	6.70E-02	0.	0.	0.	2.25E-02	3.51E-05	1.31E-02	2.61E-03	9.30E-01	0.
26	8.20 0.	6.69E-02	0.	0.	0.	2.26E-02	3.51E-05	1.31E-02	2.61E-03	9.30E-01	0.
27	8.10 0.	5.46E-02	0.	0.	0.	2.30E-02	3.94E-05	1.31E-02	2.61E-03	9.30E-01	0.
28	8.00 0.	5.36E-02	0.	0.	0.	2.31E-02	3.94E-05	1.31E-02	2.61E-03	9.30E-01	0.
29	7.90 0.	4.37E-02	0.	0.	0.	2.32E-02	4.05E-05	1.31E-02	2.61E-03	9.30E-01	0.
30	7.80 0.	4.41E-02	0.	0.	0.	2.33E-02	4.05E-05	1.31E-02	2.61E-03	9.30E-01	0.
31	7.70 0.	3.67E-02	0.	0.	0.	2.35E-02	4.19E-05	1.31E-02	2.61E-03	9.30E-01	0.
32	7.60 0.	3.50E-02	0.	0.	0.	2.35E-02	4.19E-05	1.31E-02	2.61E-03	9.30E-01	0.
33	7.50 0.	2.90E-02	0.	0.	0.	2.37E-02	4.48E-05	1.31E-02	2.61E-03	9.30E-01	0.
34	7.40 0.	2.56E-02	0.	0.	0.	2.38E-02	4.48E-05	1.31E-02	2.61E-03	9.30E-01	0.
35	7.30 0.	2.33E-02	0.	0.	0.	2.40E-02	4.82E-05	1.31E-02	2.61E-03	9.30E-01	0.
36	7.20 0.	2.01E-02	0.	0.	0.	2.41E-02	4.82E-05	1.31E-02	2.61E-03	9.30E-01	0.
37	7.10 0.	1.86E-02	0.	0.	0.	2.43E-02	4.82E-05	1.31E-02	2.61E-03	9.30E-01	0.
38	7.00 0.	1.85E-02	0.	0.	0.	2.43E-02	4.82E-05	1.31E-02	2.61E-03	9.30E-01	0.
39	6.90 0.	1.51E-02	0.	0.	0.	2.47E-02	5.11E-05	1.31E-02	2.61E-03	9.30E-01	0.
40	6.80 0.	1.31E-02	0.	0.	0.	2.49E-02	5.11E-05	1.31E-02	2.61E-03	9.30E-01	0.
41	6.70 0.	1.18E-02	0.	0.	0.	2.51E-02	5.11E-05	1.31E-02	2.61E-03	9.30E-01	0.
42	6.60 0.	1.00E-02	0.	0.	0.	2.51E-02	5.11E-05	1.31E-02	2.61E-03	9.30E-01	0.
43	6.50 0.	7.09E-03	0.	0.	0.	2.55E-02	5.11E-05	1.31E-02	2.61E-03	9.30E-01	0.
44	6.40 0.	6.40E-03	0.	0.	0.	2.57E-02	5.11E-05	1.31E-02	2.61E-03	9.30E-01	0.
45	6.30 0.	5.30E-03	0.	0.	0.	2.59E-02	5.11E-05	1.31E-02	2.61E-03	9.30E-01	0.
46	6.20 0.	4.40E-03	0.	0.	0.	2.61E-02	5.11E-05	1.31E-02	2.61E-03	9.30E-01	0.
47	6.10 0.	3.71E-03	0.	0.	0.	2.63E-02	5.11E-05	1.31E-02	2.61E-03	9.30E-01	0.
48	6.00 0.	3.00E-03	0.	0.	0.	2.65E-02	5.11E-05	1.31E-02	2.61E-03	9.30E-01	0.
49	5.90 0.	2.79E-03	0.	0.	0.	2.65E-02	5.11E-05	1.31E-02	2.61E-03	9.30E-01	0.
50	5.80 0.	2.43E-03	0.	0.	0.	2.65E-02	5.11E-05	1.31E-02	2.61E-03	9.30E-01	0.
51	5.70 0.	2.27E-03	0.	0.	0.	2.65E-02	5.11E-05	1.31E-02	2.61E-03	9.30E-01	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		11000.		DENSITY (GM/CC) 1.293E-04 (19.0E-02 NORMAL)		NO		0-		FREE-FREE		M		TOTAL AIR	
PHOTON 02 S-R		02 S-R		NO		BETA		A0		PHOTO-DET (100S)		P.E.		P.E.	
ENERGY BANDS		CONT.		NO. 1		NO		NO		2		NO		NO	
E.V.															
1 10.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2 10.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3 10.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4 10.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5 10.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6 10.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7 10.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8 10.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9 9.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10 9.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11 9.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12 9.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13 9.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14 9.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15 9.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16 9.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17 9.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18 9.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19 8.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20 8.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21 8.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22 8.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23 8.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24 8.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25 8.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26 8.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27 8.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28 8.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29 7.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30 7.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31 7.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32 7.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33 7.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34 7.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35 7.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36 7.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37 7.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38 7.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39 6.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40 6.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41 6.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42 6.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43 6.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44 6.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45 6.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46 6.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47 6.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48 6.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49 5.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50 5.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51 5.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 5-R		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		11000.		1.2935E-04		(10.0E-02 NORMAL)		0		TOTAL AIR	
ENERGY BANDS	1ST POS.	2ND POS.	1ST NEG.	N2+	BETA	NO	GAMMA	NO	VIB-RNT	NO	2	PHOTO-DET (TONS)	W	P.E.	P.E.
52	5.60	6.42E-06	0.	0.	0.	2.02E-05	1.36E-04	0.	0.	7.17E-04	1.70E-05	4.62E-04	3.36E-04	1.70E-03	
53	5.50	6.71E-06	0.	0.	0.	2.07E-05	1.39E-04	0.	0.	7.21E-04	1.80E-05	4.69E-04	3.41E-04	1.71E-03	
54	5.40	7.08E-06	0.	0.	0.	2.14E-05	1.43E-04	0.	0.	7.29E-04	1.90E-05	4.78E-04	3.47E-04	1.69E-03	
55	5.30	6.85E-06	0.	0.	0.	2.19E-05	1.48E-04	0.	0.	7.38E-04	2.00E-05	4.87E-04	3.53E-04	1.79E-03	
56	5.20	4.96E-06	0.	0.	0.	2.30E-05	1.60E-04	0.	0.	7.34E-04	2.20E-05	4.97E-04	3.61E-04	1.72E-03	
57	5.10	4.64E-06	0.	0.	0.	2.35E-05	1.67E-04	0.	0.	7.40E-04	2.35E-05	5.10E-04	3.68E-04	1.77E-03	
58	5.00	3.45E-06	0.	0.	0.	2.00E-05	1.07E-04	0.	0.	7.48E-04	2.48E-05	5.24E-04	3.76E-04	1.79E-03	
59	4.90	2.80E-06	0.	0.	0.	2.16E-05	9.73E-05	0.	0.	7.53E-04	2.61E-05	5.39E-04	3.84E-04	1.62E-03	
60	4.80	2.67E-06	0.	0.	0.	2.30E-05	8.94E-05	0.	0.	7.59E-04	2.80E-05	5.59E-04	3.92E-04	1.85E-03	
61	4.70	3.12E-06	0.	0.	0.	2.20E-05	7.77E-05	0.	0.	7.65E-04	2.95E-05	5.71E-04	4.02E-04	1.87E-03	
62	4.60	3.69E-06	0.	0.	0.	2.21E-05	7.82E-05	0.	0.	7.71E-04	3.10E-05	5.90E-04	4.12E-04	1.90E-03	
63	4.50	3.72E-06	0.	0.	0.	1.94E-05	5.21E-05	0.	0.	7.78E-04	3.40E-05	6.13E-04	4.22E-04	1.93E-03	
64	4.40	3.61E-06	0.	0.	0.	1.90E-05	3.76E-05	0.	0.	7.84E-04	3.65E-05	6.37E-04	4.32E-04	1.98E-03	
65	4.30	3.45E-06	0.	0.	0.	1.74E-05	2.19E-05	0.	0.	7.90E-04	3.90E-05	6.62E-04	4.43E-04	2.06E-03	
66	4.20	3.13E-06	0.	0.	0.	1.61E-05	1.49E-05	0.	0.	7.96E-04	4.19E-05	6.87E-04	4.53E-04	2.53E-03	
67	4.10	2.84E-06	0.	0.	0.	1.09E-05	4.42E-06	0.	0.	7.99E-04	4.51E-05	7.12E-04	4.61E-04	2.15E-03	
68	4.00	2.53E-06	0.	0.	0.	1.08E-05	3.35E-06	0.	0.	7.99E-04	4.80E-05	7.37E-04	4.69E-04	2.14E-03	
69	3.90	2.05E-06	0.	0.	0.	1.38E-05	1.42E-06	0.	0.	7.99E-04	5.24E-05	8.59E-04	4.80E-04	1.84E-03	
70	3.80	2.21E-06	0.	0.	0.	1.46E-05	8.	0.	0.	7.99E-04	5.67E-05	9.59E-04	4.91E-04	2.11E-03	
71	3.70	1.89E-06	0.	0.	0.	1.66E-05	0.	0.	0.	7.99E-04	6.14E-05	1.09E-04	1.13E-04	1.89E-03	
72	3.60	1.62E-06	0.	0.	0.	1.97E-05	1.66E-05	0.	0.	7.99E-04	6.51E-05	1.27E-04	1.27E-04	2.04E-03	
73	3.50	1.45E-06	0.	0.	0.	2.92E-05	9.22E-06	0.	0.	7.99E-04	7.26E-05	1.52E-04	1.41E-04	2.75E-03	
74	3.40	1.27E-06	0.	0.	0.	1.95E-05	8.91E-06	0.	0.	7.99E-04	7.95E-05	1.62E-04	1.41E-04	1.90E-03	
75	3.30	9.80E-07	0.	0.	0.	1.65E-05	7.88E-06	0.	0.	7.99E-04	8.65E-05	1.80E-04	1.47E-04	1.97E-03	
76	3.20	9.71E-07	0.	0.	0.	9.74E-05	1.05E-05	0.	0.	7.99E-04	9.35E-05	2.01E-04	1.51E-04	2.59E-03	
77	3.10	7.55E-07	0.	0.	0.	7.46E-05	1.39E-05	0.	0.	7.99E-04	1.09E-04	2.33E-04	1.68E-04	1.76E-03	
78	3.00	6.45E-07	0.	0.	0.	4.30E-05	4.50E-06	0.	0.	7.99E-04	1.19E-04	2.55E-04	1.76E-04	2.14E-03	
79	2.90	5.16E-07	0.	0.	0.	2.50E-05	2.82E-06	0.	0.	7.99E-04	1.28E-04	2.78E-04	1.84E-04	2.05E-03	
80	2.80	5.19E-07	0.	0.	0.	1.22E-05	2.82E-06	0.	0.	7.99E-04	1.43E-04	3.04E-04	1.94E-04	1.90E-03	
81	2.70	3.11E-07	0.	0.	0.	5.69E-06	2.18E-06	0.	0.	7.99E-04	1.58E-04	3.35E-04	2.04E-04	2.20E-03	
82	2.60	1.34E-07	0.	0.	0.	2.96E-06	2.44E-06	0.	0.	7.99E-04	1.75E-04	3.72E-04	2.14E-04	2.14E-03	
83	2.50	9.63E-09	0.	0.	0.	3.46E-07	1.88E-05	0.	0.	7.99E-04	1.95E-04	4.16E-04	2.24E-04	2.43E-03	
84	2.40	0.	0.	0.	0.	1.74E-05	1.30E-08	0.	0.	7.99E-04	2.27E-04	4.62E-04	2.34E-04	2.43E-03	
85	2.30	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	2.59E-04	5.13E-04	2.44E-04	2.43E-03	
86	2.20	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	2.94E-04	5.64E-04	2.54E-04	2.42E-03	
87	2.10	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	3.31E-04	6.14E-04	2.64E-04	2.42E-03	
88	2.00	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	3.69E-04	6.64E-04	2.74E-04	2.42E-03	
89	1.90	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	4.08E-04	7.14E-04	2.84E-04	2.42E-03	
90	1.80	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	4.48E-04	7.64E-04	2.94E-04	2.42E-03	
91	1.70	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	4.88E-04	8.14E-04	3.04E-04	2.42E-03	
92	1.60	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	5.28E-04	8.64E-04	3.14E-04	2.42E-03	
93	1.50	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	5.68E-04	9.14E-04	3.24E-04	2.42E-03	
94	1.40	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	6.08E-04	9.64E-04	3.34E-04	2.42E-03	
95	1.30	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	6.48E-04	1.01E-03	3.44E-04	2.42E-03	
96	1.20	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	6.88E-04	1.06E-03	3.54E-04	2.42E-03	
97	1.10	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	7.28E-04	1.11E-03	3.64E-04	2.42E-03	
98	1.00	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	7.68E-04	1.16E-03	3.74E-04	2.42E-03	
99	0.90	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	8.08E-04	1.21E-03	3.84E-04	2.42E-03	
100	0.80	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	8.48E-04	1.26E-03	3.94E-04	2.42E-03	
101	0.70	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	8.88E-04	1.31E-03	4.04E-04	2.42E-03	
102	0.60	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-04	9.28E-04	1.36E-03	4.14E-04	2.42E-03	

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.203E-05 (10.0E-03 NORMAL)		D- FREE-SPACE		P.E.		TOTAL AIR	
PHOTON ENERGY BANDS	Q2 S-R	Q2 S-R	NO	NO	NO	NO	NO	NO	NO	NO	NO
CONT.	CONT.	CONT.	BETA	GAMMA	BETA	GAMMA	BETA	GAMMA	BETA	GAMMA	BETA
NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9	NO. 10	NO. 11	NO. 12
E.V.	E.V.	E.V.	E.V.	E.V.	E.V.	E.V.	E.V.	E.V.	E.V.	E.V.	E.V.
1 18.70 0.	0.	9.24E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
2 10.60 0.	0.	0.64E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
3 19.50 0.	0.	7.91E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
4 18.40 0.	0.	7.20E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
5 10.30 0.	0.	6.00E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
6 10.20 0.	0.	6.00E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
7 10.10 0.	0.	5.90E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
8 10.00 0.	0.	4.59E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
9 9.90 0.	0.	4.61E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
10 9.80 0.	0.	4.19E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
11 9.70 0.	0.	3.59E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
12 9.60 0.	0.	3.61E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
13 9.50 0.	0.	2.98E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
14 9.40 0.	0.	2.69E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
15 9.30 0.	0.	2.68E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
16 9.20 0.	0.	2.04E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
17 9.10 0.	0.	2.11E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
18 9.00 0.	0.	1.88E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
19 8.90 0.	0.	1.41E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
20 8.80 0.	0.	1.59E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
21 8.70 0.	0.	1.24E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
22 8.60 0.	0.	1.20E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
23 8.50 0.	0.	1.06E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
24 8.40 0.	0.	1.85E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.
25 8.30 0.	0.	0.28E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
26 8.20 0.	0.	0.18E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
27 8.10 0.	0.	0.62E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
28 8.00 0.	0.	0.98E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
29 7.90 0.	0.	5.30E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
30 7.80 0.	0.	9.30E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
31 7.70 0.	0.	4.48E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
32 7.60 0.	0.	4.08E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
33 7.50 0.	0.	3.00E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
34 7.40 0.	0.	3.11E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
35 7.30 0.	0.	2.82E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
36 7.20 0.	0.	2.45E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
37 7.10 0.	0.	2.28E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
38 7.00 0.	0.	1.95E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
39 6.90 0.	0.	1.74E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
40 6.80 0.	0.	1.59E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
41 6.70 0.	0.	1.33E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
42 6.60 0.	0.	1.14E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
43 6.50 0.	0.	0.55E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.
44 6.40 0.	0.	5.45E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.
45 6.30 0.	0.	3.11E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.
46 6.20 0.	0.	1.59E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.
47 6.10 0.	0.	6.92E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.
48 6.00 0.	0.	1.07E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.
49 5.90 0.	0.	1.19E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.
50 5.80 0.	0.	2.95E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.
51 5.70 0.	0.	4.86E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-05		(10.0E-03 NORMAL)		0		TOTAL AIR	
ENERGY BANDS	1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	DATA	NO	NO	NO	NO	PHOTO-DET (IONS)	FREE-FREE (IONS)	N	P.E.
52	5.60	6.06E-08	0.	0.	1.61E-07	1.29E-06	0.	0.	2.16E-05	1.68E-06	4.49E-05	3.27E-05	1.02E-04
53	5.50	6.39E-08	0.	0.	2.33E-07	1.29E-06	0.	0.	2.17E-05	1.78E-06	4.56E-05	3.32E-05	1.04E-04
54	5.40	6.70E-08	0.	0.	2.03E-07	1.29E-06	0.	0.	2.18E-05	1.88E-06	4.64E-05	3.37E-05	1.05E-04
55	5.30	6.48E-08	0.	0.	2.07E-07	1.29E-06	0.	0.	2.19E-05	1.99E-06	4.73E-05	3.43E-05	1.07E-04
56	5.20	6.78E-08	0.	0.	2.17E-07	1.29E-06	0.	0.	2.21E-05	2.10E-06	4.82E-05	3.51E-05	1.08E-04
57	5.10	6.39E-08	0.	0.	2.12E-07	1.29E-06	0.	0.	2.23E-05	2.23E-06	4.95E-05	3.58E-05	1.11E-04
58	5.00	3.26E-08	0.	0.	2.09E-07	1.29E-06	0.	0.	2.25E-05	2.37E-06	5.09E-05	3.66E-05	1.13E-04
59	4.90	2.73E-08	0.	0.	2.04E-07	1.29E-06	0.	0.	2.28E-05	2.52E-06	5.24E-05	3.74E-05	1.16E-04
60	4.80	2.72E-08	0.	0.	2.06E-07	1.29E-06	0.	0.	2.28E-05	2.68E-06	5.39E-05	3.82E-05	1.19E-04
61	4.70	2.93E-08	0.	0.	2.08E-07	1.29E-06	0.	0.	2.30E-05	2.85E-06	5.54E-05	3.91E-05	1.21E-04
62	4.50	3.49E-08	0.	0.	2.03E-07	1.29E-06	0.	0.	2.32E-05	3.04E-06	5.73E-05	4.01E-05	1.25E-04
63	4.30	3.90E-08	0.	0.	1.83E-07	1.29E-06	0.	0.	2.34E-05	3.25E-06	5.96E-05	4.11E-05	1.28E-04
64	4.10	3.27E-08	0.	0.	1.64E-07	1.29E-06	0.	0.	2.36E-05	3.49E-06	6.19E-05	4.21E-05	1.32E-04
65	4.30	3.27E-08	0.	0.	1.64E-07	1.29E-06	0.	0.	2.36E-05	3.73E-06	6.43E-05	4.31E-05	1.36E-04
66	4.20	2.94E-08	0.	0.	1.71E-07	1.29E-06	0.	0.	2.40E-05	4.01E-06	6.76E-05	4.39E-05	1.42E-04
67	4.10	2.49E-08	0.	0.	1.60E-07	1.29E-06	0.	0.	2.48E-05	4.31E-06	7.15E-05	4.24E-05	1.41E-04
68	4.00	2.39E-08	0.	0.	1.59E-07	1.29E-06	0.	0.	2.41E-05	4.64E-06	7.14E-05	4.24E-05	1.41E-04
69	3.90	1.94E-08	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	5.01E-06	7.18E-05	4.24E-05	1.41E-04
70	3.80	2.08E-08	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	5.41E-06	7.18E-05	4.24E-05	1.41E-04
71	3.70	1.79E-08	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	5.81E-06	7.18E-05	4.24E-05	1.41E-04
72	3.60	1.53E-08	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	6.21E-06	7.18E-05	4.24E-05	1.41E-04
73	3.50	1.37E-08	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	6.61E-06	7.18E-05	4.24E-05	1.41E-04
74	3.40	1.20E-08	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	7.01E-06	7.18E-05	4.24E-05	1.41E-04
75	3.30	9.34E-09	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	7.41E-06	7.18E-05	4.24E-05	1.41E-04
76	3.20	7.77E-09	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	7.81E-06	7.18E-05	4.24E-05	1.41E-04
77	3.10	7.14E-09	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	8.21E-06	7.18E-05	4.24E-05	1.41E-04
78	3.00	6.11E-09	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	8.61E-06	7.18E-05	4.24E-05	1.41E-04
79	2.90	4.88E-09	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	9.01E-06	7.18E-05	4.24E-05	1.41E-04
80	2.80	4.91E-09	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	9.41E-06	7.18E-05	4.24E-05	1.41E-04
81	2.70	2.94E-09	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	9.81E-06	7.18E-05	4.24E-05	1.41E-04
82	2.60	1.24E-09	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.02E-05	7.18E-05	4.24E-05	1.41E-04
83	2.50	0.54E-11	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.06E-05	7.18E-05	4.24E-05	1.41E-04
84	2.40	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.10E-05	7.18E-05	4.24E-05	1.41E-04
85	2.30	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.14E-05	7.18E-05	4.24E-05	1.41E-04
86	2.20	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.18E-05	7.18E-05	4.24E-05	1.41E-04
87	2.10	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.22E-05	7.18E-05	4.24E-05	1.41E-04
88	2.00	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.26E-05	7.18E-05	4.24E-05	1.41E-04
89	1.90	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.30E-05	7.18E-05	4.24E-05	1.41E-04
90	1.80	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.34E-05	7.18E-05	4.24E-05	1.41E-04
91	1.70	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.38E-05	7.18E-05	4.24E-05	1.41E-04
92	1.60	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.42E-05	7.18E-05	4.24E-05	1.41E-04
93	1.50	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.46E-05	7.18E-05	4.24E-05	1.41E-04
94	1.40	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.50E-05	7.18E-05	4.24E-05	1.41E-04
95	1.30	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.54E-05	7.18E-05	4.24E-05	1.41E-04
96	1.20	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.58E-05	7.18E-05	4.24E-05	1.41E-04
97	1.10	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.62E-05	7.18E-05	4.24E-05	1.41E-04
98	1.00	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.66E-05	7.18E-05	4.24E-05	1.41E-04
99	0.90	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.70E-05	7.18E-05	4.24E-05	1.41E-04
100	0.80	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.74E-05	7.18E-05	4.24E-05	1.41E-04
101	0.70	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.78E-05	7.18E-05	4.24E-05	1.41E-04
102	0.60	0.	0.	0.	1.38E-07	1.29E-06	0.	0.	2.40E-05	1.82E-05	7.18E-05	4.24E-05	1.41E-04

ABSORPTION COEFFICIENTS OF HEATED AIR (IMPERIAL CM.)

PHOTON ENERGY BANDS E.V.	02 S-R BANDS CONT.	M2 0-M NO. 1	TEMPERATURE (DEGREES K) 11000.		NO. 2	NO. 3	P.E. PHOTO-DET (1000)	P.E. PHOTO-DET (1000)	P.E. TOTAL AIR
			BETA	ALPHA					
1 10.16 0.	0.	6.91E-07	0.	0.	0.	0.	5.31E-07	2.04E-06	1.19E-05
2 10.00 0.	0.	6.01E-07	0.	0.	0.	0.	5.42E-07	2.14E-06	1.28E-05
3 10.50 0.	0.	5.91E-07	0.	0.	0.	0.	5.42E-07	2.14E-06	1.28E-05
4 10.40 0.	0.	5.30E-07	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
5 10.30 0.	0.	4.90E-07	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
6 10.20 0.	0.	4.90E-07	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
7 10.10 0.	0.	4.11E-07	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
8 10.00 0.	0.	3.40E-07	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
9 9.90 0.	0.	3.40E-07	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
10 9.80 0.	0.	3.10E-07	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
11 9.70 0.	0.	2.91E-07	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
12 9.60 0.	0.	2.72E-07	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
13 9.50 0.	0.	2.10E-07	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
14 9.40 0.	0.	1.90E-07	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
15 9.30 0.	0.	2.61E-07	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
16 9.20 0.	0.	1.54E-07	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
17 9.10 0.	0.	1.50E-07	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
18 9.00 0.	0.	1.36E-07	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
19 8.90 0.	0.	1.20E-07	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
20 8.80 0.	0.	1.16E-07	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
21 8.70 0.	0.	9.44E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
22 8.60 0.	0.	9.50E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
23 8.50 0.	0.	7.09E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
24 8.40 0.	0.	7.67E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
25 8.30 0.	0.	6.14E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
26 8.20 0.	0.	6.07E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
27 8.10 0.	0.	4.95E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
28 8.00 0.	0.	4.66E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
29 7.90 0.	0.	3.96E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
30 7.80 0.	0.	4.00E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
31 7.70 0.	0.	3.33E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
32 7.60 0.	0.	3.07E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
33 7.50 0.	0.	2.69E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
34 7.40 0.	0.	2.32E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
35 7.30 0.	0.	2.11E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
36 7.20 0.	0.	1.62E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
37 7.10 0.	0.	1.60E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
38 7.00 4.03E-12	0.	1.43E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
39 6.90 7.64E-12	0.	1.38E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
40 6.80 6.40E-12	0.	1.19E-08	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
41 6.70 5.58E-12	0.	9.66E-09	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
42 6.60 2.68E-12	0.	9.51E-09	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
43 6.50 1.49E-12	0.	6.39E-09	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
44 6.40 2.04E-12	0.	4.87E-09	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
45 6.30 4.29E-12	0.	2.32E-09	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
46 6.20 1.27E-11	0.	1.19E-09	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
47 6.10 5.13E-11	0.	5.10E-10	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
48 6.00 1.35E-10	0.	1.25E-10	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
49 5.90 2.20E-10	0.	9.92E-11	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
50 5.80 3.37E-10	0.	2.24E-11	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05
51 5.70 4.01E-10	0.	0.	0.	0.	0.	0.	5.44E-07	2.17E-06	1.31E-05

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		11000.		DENSITY (GM/CC)		1.203E-07		(10.0E-05 NORMAL)		NO		D- FREE-FREE		H		P.E.		TOTAL AIR	
NO		NO		NO		NO		NO		NO		NO		NO		NO		NO	
P.E.		P.E.		P.E.		P.E.		P.E.		P.E.		P.E.		P.E.		P.E.		P.E.	
E.V.		E.V.		E.V.		E.V.		E.V.		E.V.		E.V.		E.V.		E.V.		E.V.	
1	10.70	0.	2.02E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2	10.80	0.	2.03E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3	10.90	0.	2.04E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4	11.00	0.	2.05E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5	11.10	0.	2.06E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6	11.20	0.	2.07E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7	11.30	0.	2.08E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8	11.40	0.	2.09E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9	11.50	0.	2.10E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10	11.60	0.	2.11E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	11.70	0.	2.12E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12	11.80	0.	2.13E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13	11.90	0.	2.14E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14	12.00	0.	2.15E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15	12.10	0.	2.16E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16	12.20	0.	2.17E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17	12.30	0.	2.18E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18	12.40	0.	2.19E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19	12.50	0.	2.20E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20	12.60	0.	2.21E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	12.70	0.	2.22E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22	12.80	0.	2.23E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23	12.90	0.	2.24E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24	13.00	0.	2.25E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25	13.10	0.	2.26E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26	13.20	0.	2.27E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27	13.30	0.	2.28E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28	13.40	0.	2.29E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29	13.50	0.	2.30E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30	13.60	0.	2.31E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	13.70	0.	2.32E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32	13.80	0.	2.33E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33	13.90	0.	2.34E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34	14.00	0.	2.35E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35	14.10	0.	2.36E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36	14.20	0.	2.37E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37	14.30	0.	2.38E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38	14.40	0.	2.39E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39	14.50	0.	2.40E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40	14.60	0.	2.41E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	14.70	0.	2.42E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42	14.80	0.	2.43E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43	14.90	0.	2.44E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44	15.00	0.	2.45E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45	15.10	0.	2.46E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46	15.20	0.	2.47E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47	15.30	0.	2.48E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48	15.40	0.	2.49E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49	15.50	0.	2.50E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50	15.60	0.	2.51E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	15.70	0.	2.52E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 5-A ENERGY BANDS		1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	NO BETA	AO GAMMA	NO VIB-RPT	NO 2	0- PHOTO-DET (10MS)	FREE-FREE N P.E.	0 P.E.	TOTAL AIR	
52	5.60	2.63E-12	0.	0.	0.	6.92E-12	4.47E-11	0.	0.	1.07E-08	9.53E-09	2.40E-07	2.15E-07	4.03E-07
53	5.50	2.74E-12	0.	0.	0.	6.97E-12	4.44E-11	0.	0.	1.07E-08	1.01E-08	2.52E-07	2.10E-07	4.91E-07
54	5.40	2.89E-12	0.	0.	0.	7.32E-12	3.15E-11	0.	0.	1.08E-08	1.04E-08	2.56E-07	2.22E-07	5.00E-07
55	5.30	2.80E-12	0.	0.	0.	7.52E-12	4.40E-11	0.	0.	1.09E-08	1.12E-08	2.61E-07	2.24E-07	5.00E-07
56	5.20	2.03E-12	0.	0.	0.	7.87E-12	2.74E-11	0.	0.	1.09E-08	1.19E-08	2.66E-07	2.31E-07	5.20E-07
57	5.10	1.98E-12	0.	0.	0.	7.71E-12	3.86E-11	0.	0.	1.10E-08	1.26E-08	2.73E-07	2.36E-07	5.33E-07
58	5.00	1.41E-12	0.	0.	0.	6.95E-12	3.85E-11	0.	0.	1.11E-08	1.34E-08	2.81E-07	2.41E-07	5.40E-07
59	4.90	1.10E-12	0.	0.	0.	7.42E-12	3.73E-11	0.	0.	1.12E-08	1.42E-08	2.99E-07	2.46E-07	5.61E-07
60	4.80	1.10E-12	0.	0.	0.	7.42E-12	3.73E-11	0.	0.	1.12E-08	1.42E-08	2.99E-07	2.46E-07	5.61E-07
61	4.70	1.21E-12	0.	0.	0.	7.54E-12	2.64E-11	0.	0.	1.14E-08	1.62E-08	3.04E-07	2.57E-07	5.91E-07
62	4.60	1.51E-12	0.	0.	0.	7.57E-12	2.64E-11	0.	0.	1.14E-08	1.62E-08	3.04E-07	2.57E-07	5.91E-07
63	4.50	1.52E-12	0.	0.	0.	6.51E-12	1.79E-11	0.	0.	1.14E-08	1.64E-08	3.29E-07	2.70E-07	6.29E-07
64	4.40	1.54E-12	0.	0.	0.	6.51E-12	1.79E-11	0.	0.	1.14E-08	1.64E-08	3.29E-07	2.70E-07	6.29E-07
65	4.30	1.41E-12	0.	0.	0.	5.96E-12	7.57E-12	0.	0.	1.16E-08	2.11E-08	3.55E-07	2.62E-07	6.78E-07
66	4.20	1.28E-12	0.	0.	0.	6.09E-12	5.79E-12	0.	0.	1.19E-08	2.27E-08	3.68E-07	2.73E-07	6.40E-07
67	4.10	1.14E-12	0.	0.	0.	5.01E-12	1.52E-12	0.	0.	1.19E-08	2.44E-08	3.62E-07	2.91E-07	6.47E-07
68	4.00	1.03E-12	0.	0.	0.	1.24E-12	1.44E-12	0.	0.	1.19E-08	2.63E-08	3.78E-07	3.09E-07	6.27E-07
69	3.90	0.40E-13	0.	0.	0.	5.90E-12	4.73E-12	0.	0.	1.19E-08	2.63E-08	3.78E-07	3.09E-07	6.27E-07
70	3.80	0.40E-13	0.	0.	0.	5.20E-12	5.02E-12	0.	0.	1.19E-08	2.63E-08	3.78E-07	3.09E-07	6.27E-07
71	3.70	0.75E-13	0.	0.	0.	5.66E-12	4.31E-12	0.	0.	1.19E-08	3.33E-08	2.68E-07	7.23E-07	3.98E-07
72	3.60	6.61E-13	0.	0.	0.	5.66E-12	4.31E-12	0.	0.	1.19E-08	3.33E-08	2.68E-07	7.23E-07	3.98E-07
73	3.50	5.14E-13	0.	0.	0.	4.39E-12	3.10E-12	0.	0.	1.08E-08	3.61E-08	2.63E-07	8.10E-07	3.94E-07
74	3.40	5.14E-13	0.	0.	0.	4.39E-12	3.10E-12	0.	0.	1.08E-08	3.61E-08	2.63E-07	8.10E-07	3.94E-07
75	3.30	4.04E-13	0.	0.	0.	4.95E-12	3.50E-12	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
76	3.20	3.04E-13	0.	0.	0.	2.80E-12	2.78E-12	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
77	3.10	3.09E-13	0.	0.	0.	2.14E-12	1.72E-12	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
78	3.00	2.64E-13	0.	0.	0.	1.23E-12	2.08E-12	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
79	2.90	2.11E-13	0.	0.	0.	3.51E-12	1.40E-12	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
80	2.80	2.11E-13	0.	0.	0.	3.51E-12	1.40E-12	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
81	2.70	1.27E-13	0.	0.	0.	1.61E-12	2.69E-12	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
82	2.60	5.47E-14	0.	0.	0.	0.10E-13	2.52E-10	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
83	2.50	5.47E-14	0.	0.	0.	0.10E-13	2.52E-10	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
84	2.40	5.47E-14	0.	0.	0.	0.10E-13	2.52E-10	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
85	2.30	0.	0.	0.	0.	2.21E-12	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
86	2.20	0.	0.	0.	0.	4.94E-11	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
87	2.10	0.	0.	0.	0.	6.44E-11	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
88	2.00	0.	0.	0.	0.	1.17E-10	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
89	1.90	0.	0.	0.	0.	1.93E-10	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
90	1.80	0.	0.	0.	0.	1.57E-10	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
91	1.70	0.	0.	0.	0.	1.09E-10	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
92	1.60	0.	0.	0.	0.	1.33E-10	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
93	1.50	0.	0.	0.	0.	1.62E-10	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
94	1.40	0.	0.	0.	0.	1.24E-10	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
95	1.30	0.	0.	0.	0.	1.24E-10	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
96	1.20	0.	0.	0.	0.	1.24E-10	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
97	1.10	0.	0.	0.	0.	1.87E-10	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
98	1.00	0.	0.	0.	0.	0.87E-11	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
99	0.90	0.	0.	0.	0.	0.64E-11	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
100	0.80	0.	0.	0.	0.	3.77E-11	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
101	0.70	0.	0.	0.	0.	9.67E-12	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07
102	0.60	0.	0.	0.	0.	0.24E-13	0.	0.	0.	9.77E-09	4.29E-08	3.33E-07	1.01E-07	4.43E-07

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K): 3100. DENSITY (GM/CC) 1.2932-00 (10.24-00 NORMAL)

PHOTON 02 S-R ENERGY BANDS E.V.	02 S-R CONST.	02 S-R NO. 1	NO BETA	NO GAMMA	0- 2 PHOTO-DEUT (1000)	FREE-FREE P.E.	0 P.E.	TOTAL AIR
1 18.70 0.	0.	2.79E-12	0.	0.	6.42E-11	4.33E-11	2.34E-00	6.40E-09 3.01E-00
2 10.00 0.	0.	2.35E-12	0.	0.	6.43E-11	4.40E-11	2.37E-00	6.39E-09 3.02E-00
3 10.50 0.	0.	2.31E-12	0.	0.	6.44E-11	4.39E-11	2.36E-00	6.38E-09 3.03E-00
4 10.40 0.	0.	2.10E-12	0.	0.	6.45E-11	4.72E-11	2.39E-00	6.36E-09 3.04E-00
5 10.20 0.	0.	1.75E-12	0.	0.	6.46E-11	4.60E-11	2.40E-00	6.37E-09 3.04E-00
6 18.20 0.	0.	1.74E-12	0.	0.	6.47E-11	5.01E-11	2.40E-00	6.24E-09 3.02E-00
7 18.10 0.	0.	1.61E-12	0.	0.	6.47E-11	5.10E-11	2.41E-00	6.35E-09 3.04E-00
8 18.00 0.	0.	1.33E-12	0.	0.	6.48E-11	5.31E-11	2.41E-00	6.34E-09 3.04E-00
9 9.90 0.	0.	1.35E-12	0.	0.	6.70E-11	5.00E-11	2.42E-00	6.33E-09 3.07E-00
10 9.70 0.	0.	1.21E-12	0.	0.	6.71E-11	5.05E-11	2.43E-00	6.32E-09 3.07E-00
11 9.60 0.	0.	9.98E-13	0.	0.	6.72E-11	5.03E-11	2.43E-00	6.31E-09 3.06E-00
12 9.60 0.	0.	1.00E-12	0.	0.	6.73E-11	4.91E-11	2.44E-00	6.30E-09 3.08E-00
13 9.50 0.	0.	0.56E-13	0.	0.	6.74E-11	4.80E-11	2.45E-00	6.29E-09 3.09E-00
14 9.40 0.	0.	7.75E-13	0.	0.	6.77E-11	4.98E-11	2.45E-00	6.29E-09 3.09E-00
15 9.30 0.	0.	7.64E-13	0.	0.	6.79E-11	4.91E-11	2.46E-00	6.27E-09 3.15E-00
16 9.20 0.	0.	6.02E-13	0.	0.	6.82E-11	4.83E-11	2.47E-00	6.24E-09 3.15E-00
17 9.10 0.	0.	6.14E-13	0.	0.	6.84E-11	4.70E-11	2.47E-00	6.24E-09 3.14E-00
18 9.00 0.	0.	5.37E-13	0.	0.	6.87E-11	4.70E-11	2.48E-00	6.25E-09 3.14E-00
19 8.90 0.	0.	4.78E-13	0.	0.	6.89E-11	4.55E-11	2.48E-00	6.24E-09 3.14E-00
20 8.80 0.	0.	4.52E-13	0.	0.	6.92E-11	4.70E-11	2.48E-00	6.23E-09 3.14E-00
21 8.70 0.	0.	3.69E-13	0.	0.	6.94E-11	4.69E-11	2.48E-00	6.22E-09 3.14E-00
22 8.60 0.	0.	3.75E-13	0.	0.	6.96E-11	4.60E-11	2.48E-00	6.21E-09 3.14E-00
23 8.50 0.	0.	3.08E-13	0.	0.	7.13E-11	4.97E-11	2.49E-00	6.20E-09 3.13E-00
24 8.40 0.	0.	3.00E-13	0.	0.	7.13E-11	4.97E-11	2.49E-00	6.20E-09 3.13E-00
25 8.30 0.	0.	2.48E-13	0.	0.	7.16E-11	4.97E-11	2.49E-00	6.21E-09 3.14E-00
26 8.20 0.	0.	2.37E-13	0.	0.	7.16E-11	4.97E-11	2.49E-00	6.21E-09 3.14E-00
27 8.10 0.	0.	1.94E-13	0.	0.	7.17E-11	4.94E-11	2.49E-00	6.20E-09 3.14E-00
28 8.00 0.	0.	1.98E-13	0.	0.	7.17E-11	4.94E-11	2.49E-00	6.20E-09 3.14E-00
29 7.90 0.	0.	1.59E-13	0.	0.	7.23E-11	4.90E-11	2.49E-00	6.20E-09 3.14E-00
30 7.80 0.	0.	1.56E-13	0.	0.	7.23E-11	4.90E-11	2.49E-00	6.20E-09 3.14E-00
31 7.70 0.	0.	1.36E-13	0.	0.	7.28E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
32 7.60 0.	0.	1.19E-13	0.	0.	7.32E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
33 7.50 0.	0.	9.88E-14	0.	0.93E-10	7.34E-11	4.94E-11	2.49E-00	6.20E-09 3.14E-00
34 7.40 0.	0.	9.88E-14	0.	2.30E-10	7.40E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
35 7.30 0.	0.	8.25E-14	0.	1.16E-10	7.44E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
36 7.20 0.	0.	7.12E-14	0.	3.08E-10	7.48E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
37 7.10 0.	0.	6.06E-14	0.	4.48E-10	7.54E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
38 7.00 0.	0.	5.77E-14	0.	2.17E-10	7.60E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
39 6.90 0.	0.	5.07E-14	0.	2.31E-10	7.64E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
40 6.80 0.	0.	4.66E-14	0.	4.75E-10	7.73E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
41 6.70 0.	0.	3.89E-14	0.	5.56E-10	7.79E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
42 6.60 0.	0.	3.35E-14	0.	3.53E-10	7.85E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
43 6.50 0.	0.	2.98E-14	0.	6.17E-10	7.91E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
44 6.40 0.	0.	1.90E-14	3.30E-10	4.86E-10	7.97E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
45 6.30 0.	0.	9.08E-15	1.46E-10	3.73E-10	8.03E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
46 6.20 0.	0.	4.64E-15	1.97E-10	5.63E-10	8.09E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
47 6.10 0.	0.	2.02E-15	5.44E-10	8.22E-10	8.15E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
48 6.00 0.	0.	4.06E-16	4.77E-10	3.20E-10	8.22E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
49 5.90 0.	0.	3.40E-17	6.00E-10	3.41E-10	8.29E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
50 5.80 0.	0.	2.42E-15	0.22E-10	3.56E-10	8.36E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00
51 5.70 0.	0.	2.68E-15	1.02E-10	3.56E-10	8.43E-11	4.97E-11	2.49E-00	6.20E-09 3.14E-00

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-08 (10.0E-06 NORMAL)		0		TOTAL AIR	
ENERGY BANDS	1ST POS.	2ND POS.	1ST NEG.	2ND POS.	1ST NEG.	2ND POS.	1ST NEG.	2ND POS.	1ST NEG.	2ND POS.	1ST NEG.
52	5.40	3.40E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
53	5.50	3.70E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
54	5.60	3.95E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
55	5.70	3.84E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
56	5.80	2.70E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
57	5.90	2.60E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
58	5.10	1.95E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
59	4.00	1.65E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
60	4.00	1.65E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
61	4.70	1.70E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
62	4.50	2.05E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
63	4.50	2.05E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
64	4.40	2.15E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
65	4.30	1.95E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
66	4.20	1.70E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
67	4.10	1.50E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
68	4.00	1.45E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
69	3.90	1.35E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
70	3.80	1.25E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
71	3.70	1.05E-15	0.	0.	0.	0.	0.	0.	0.	0.	0.
72	3.60	9.00E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.
73	3.50	6.10E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.
74	3.40	2.10E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.
75	3.30	2.10E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.
76	3.20	4.60E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.
77	3.10	4.05E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.
78	3.00	3.05E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.
79	2.90	2.05E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.
80	2.80	2.95E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.
81	2.70	1.70E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.
82	2.60	7.40E-17	0.	0.	0.	0.	0.	0.	0.	0.	0.
83	2.50	5.00E-16	0.	0.	0.	0.	0.	0.	0.	0.	0.
84	2.40	0.	5.25E-15	0.	0.	0.	0.	0.	0.	0.	0.
85	2.30	0.	2.12E-14	0.	0.	0.	0.	0.	0.	0.	0.
86	2.20	0.	4.70E-14	0.	0.	0.	0.	0.	0.	0.	0.
87	2.10	0.	6.10E-14	0.	0.	0.	0.	0.	0.	0.	0.
88	2.00	0.	1.07E-13	0.	0.	0.	0.	0.	0.	0.	0.
89	1.90	0.	1.34E-13	0.	0.	0.	0.	0.	0.	0.	0.
90	1.80	0.	1.50E-13	0.	0.	0.	0.	0.	0.	0.	0.
91	1.70	0.	1.81E-13	0.	0.	0.	0.	0.	0.	0.	0.
92	1.60	0.	1.20E-13	0.	0.	0.	0.	0.	0.	0.	0.
93	1.50	0.	1.55E-13	0.	0.	0.	0.	0.	0.	0.	0.
94	1.40	0.	1.90E-13	0.	0.	0.	0.	0.	0.	0.	0.
95	1.30	0.	1.20E-13	0.	0.	0.	0.	0.	0.	0.	0.
96	1.20	0.	1.10E-13	0.	0.	0.	0.	0.	0.	0.	0.
97	1.10	0.	1.03E-13	0.	0.	0.	0.	0.	0.	0.	0.
98	1.00	0.	9.40E-14	0.	0.	0.	0.	0.	0.	0.	0.
99	0.90	0.	7.71E-14	0.	0.	0.	0.	0.	0.	0.	0.
100	0.80	0.	3.61E-14	0.	0.	0.	0.	0.	0.	0.	0.
101	0.70	0.	9.23E-15	0.	0.	0.	0.	0.	0.	0.	0.
102	0.60	0.	7.90E-16	0.	0.	0.	0.	0.	0.	0.	0.

TEMPERATURE (DEGREES K) 1100. DENSITY (GM/CC) 1.2932-89 (10.0E-07 NORMAL)

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ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-09		(18.0E-07 NORMAL)		0		FREE-FREE		N		D		TOTAL AIR	
ENERGY BANDS		1ST POS. 2ND POS. 1ST NEG.		BETA		NO		GAMMA		NO		VIB-ROT		NO		P.E.		P.E.	
52	5.40	2.97E-19	0.	0.	0.	1.42E-18	1.10E-17	0.	0.	1.24E-13	4.26E-12	1.06E-10	1.10E-10	1.10E-10	1.10E-10	1.10E-10	2.20E-10	2.20E-10	2.20E-10
53	5.50	4.32E-19	0.	0.	0.	1.09E-18	1.04E-17	0.	0.	1.20E-13	4.05E-12	1.02E-10	1.02E-10	1.02E-10	1.02E-10	1.02E-10	2.32E-10	2.32E-10	2.32E-10
54	5.60	6.78E-19	0.	0.	0.	1.72E-18	1.34E-16	0.	0.	1.48E-13	4.79E-12	1.15E-10	1.15E-10	1.15E-10	1.15E-10	1.15E-10	2.45E-10	2.45E-10	2.45E-10
55	5.70	8.50E-19	0.	0.	0.	1.70E-18	1.03E-16	0.	0.	1.46E-13	4.75E-12	1.13E-10	1.13E-10	1.13E-10	1.13E-10	1.13E-10	2.43E-10	2.43E-10	2.43E-10
56	5.80	6.16E-19	0.	0.	0.	1.69E-18	6.44E-16	0.	0.	1.27E-13	5.35E-12	1.13E-10	1.13E-10	1.13E-10	1.13E-10	1.13E-10	2.46E-10	2.46E-10	2.46E-10
57	5.90	5.74E-19	0.	0.	0.	1.61E-18	8.64E-16	0.	0.	1.20E-13	5.95E-12	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	2.52E-10	2.52E-10	2.52E-10
58	6.00	4.28E-19	0.	0.	0.	1.61E-18	7.42E-16	0.	0.	1.39E-13	6.40E-12	1.20E-10	1.20E-10	1.20E-10	1.20E-10	1.20E-10	2.58E-10	2.58E-10	2.58E-10
59	6.10	3.57E-19	0.	0.	0.	1.74E-18	7.42E-16	0.	0.	1.30E-13	6.37E-12	1.23E-10	1.23E-10	1.23E-10	1.23E-10	1.23E-10	2.65E-10	2.65E-10	2.65E-10
60	6.20	3.57E-19	0.	0.	0.	1.64E-18	7.20E-16	0.	0.	1.31E-13	6.37E-12	1.23E-10	1.23E-10	1.23E-10	1.23E-10	1.23E-10	2.72E-10	2.72E-10	2.72E-10
61	6.30	3.57E-19	0.	0.	0.	1.77E-18	6.59E-16	0.	0.	1.33E-13	7.23E-12	1.30E-10	1.30E-10	1.30E-10	1.30E-10	1.30E-10	2.78E-10	2.78E-10	2.78E-10
62	6.40	4.58E-19	0.	0.	0.	1.70E-18	5.77E-16	0.	0.	1.44E-13	7.71E-12	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10	2.86E-10	2.86E-10	2.86E-10
63	6.50	4.62E-19	0.	0.	0.	1.56E-18	4.19E-16	0.	0.	1.35E-13	8.24E-12	1.40E-10	1.40E-10	1.40E-10	1.40E-10	1.40E-10	2.97E-10	2.97E-10	2.97E-10
64	6.60	4.72E-19	0.	0.	0.	1.53E-18	3.02E-16	0.	0.	1.30E-13	8.22E-12	1.45E-10	1.45E-10	1.45E-10	1.45E-10	1.45E-10	3.06E-10	3.06E-10	3.06E-10
65	6.70	4.28E-19	0.	0.	0.	1.48E-18	1.74E-16	0.	0.	1.37E-13	9.46E-12	1.51E-10	1.51E-10	1.51E-10	1.51E-10	1.51E-10	3.07E-10	3.07E-10	3.07E-10
66	6.80	3.68E-19	0.	0.	0.	1.45E-18	1.34E-16	0.	0.	1.38E-13	1.01E-11	1.57E-10	1.57E-10	1.57E-10	1.57E-10	1.57E-10	3.10E-10	3.10E-10	3.10E-10
67	6.90	3.72E-19	0.	0.	0.	1.45E-18	1.34E-16	0.	0.	1.38E-13	1.01E-11	1.57E-10	1.57E-10	1.57E-10	1.57E-10	1.57E-10	3.11E-10	3.11E-10	3.11E-10
68	7.00	3.72E-19	0.	0.	0.	1.45E-18	1.34E-16	0.	0.	1.38E-13	1.01E-11	1.57E-10	1.57E-10	1.57E-10	1.57E-10	1.57E-10	3.11E-10	3.11E-10	3.11E-10
69	7.10	3.72E-19	0.	0.	0.	1.45E-18	1.34E-16	0.	0.	1.38E-13	1.01E-11	1.57E-10	1.57E-10	1.57E-10	1.57E-10	1.57E-10	3.11E-10	3.11E-10	3.11E-10
70	7.20	3.72E-19	0.	0.	0.	1.45E-18	1.34E-16	0.	0.	1.38E-13	1.01E-11	1.57E-10	1.57E-10	1.57E-10	1.57E-10	1.57E-10	3.11E-10	3.11E-10	3.11E-10
71	7.30	2.30E-19	0.	0.	0.	1.82E-17	6.29E-15	9.30E-19	0.	0.	1.32E-13	1.49E-11	1.02E-10	1.02E-10	1.02E-10	1.02E-10	1.57E-10	1.57E-10	1.57E-10
72	7.40	2.80E-19	0.	0.	0.	1.82E-17	6.29E-15	9.30E-19	0.	0.	1.32E-13	1.49E-11	1.02E-10	1.02E-10	1.02E-10	1.02E-10	1.57E-10	1.57E-10	1.57E-10
73	7.50	1.57E-19	0.	0.	0.	1.82E-17	6.29E-15	9.30E-19	0.	0.	1.32E-13	1.49E-11	1.02E-10	1.02E-10	1.02E-10	1.02E-10	1.57E-10	1.57E-10	1.57E-10
74	7.60	1.57E-19	0.	0.	0.	1.82E-17	6.29E-15	9.30E-19	0.	0.	1.32E-13	1.49E-11	1.02E-10	1.02E-10	1.02E-10	1.02E-10	1.57E-10	1.57E-10	1.57E-10
75	7.70	1.57E-19	0.	0.	0.	1.82E-17	6.29E-15	9.30E-19	0.	0.	1.32E-13	1.49E-11	1.02E-10	1.02E-10	1.02E-10	1.02E-10	1.57E-10	1.57E-10	1.57E-10
76	7.80	1.57E-19	0.	0.	0.	1.82E-17	6.29E-15	9.30E-19	0.	0.	1.32E-13	1.49E-11	1.02E-10	1.02E-10	1.02E-10	1.02E-10	1.57E-10	1.57E-10	1.57E-10
77	7.90	1.57E-19	0.	0.	0.	1.82E-17	6.29E-15	9.30E-19	0.	0.	1.32E-13	1.49E-11	1.02E-10	1.02E-10	1.02E-10	1.02E-10	1.57E-10	1.57E-10	1.57E-10
78	8.00	8.00E-20	0.	0.	0.	1.34E-18	4.76E-16	5.12E-19	0.	0.	6.77E-14	2.80E-11	2.06E-10	2.06E-10	2.06E-10	2.06E-10	3.19E-10	3.19E-10	3.19E-10
79	8.10	6.30E-20	0.	0.	0.	1.34E-18	4.76E-16	5.12E-19	0.	0.	6.77E-14	2.80E-11	2.06E-10	2.06E-10	2.06E-10	2.06E-10	3.19E-10	3.19E-10	3.19E-10
80	8.20	6.30E-20	0.	0.	0.	1.34E-18	4.76E-16	5.12E-19	0.	0.	6.77E-14	2.80E-11	2.06E-10	2.06E-10	2.06E-10	2.06E-10	3.19E-10	3.19E-10	3.19E-10
81	8.30	3.59E-20	0.	0.	0.	1.34E-18	4.76E-16	5.12E-19	0.	0.	6.77E-14	2.80E-11	2.06E-10	2.06E-10	2.06E-10	2.06E-10	3.19E-10	3.19E-10	3.19E-10
82	8.40	1.66E-20	0.	0.	0.	1.40E-19	2.16E-15	4.94E-20	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
83	8.50	1.12E-21	0.	0.	0.	1.40E-19	2.16E-15	4.94E-20	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
84	8.60	0.	0.	0.	0.	1.84E-19	1.03E-15	1.03E-21	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
85	8.70	0.	0.	0.	0.	4.01E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
86	8.80	0.	0.	0.	0.	9.03E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
87	8.90	0.	0.	0.	0.	1.17E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
88	9.00	0.	0.	0.	0.	2.63E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
89	9.10	0.	0.	0.	0.	3.40E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
90	9.20	0.	0.	0.	0.	2.84E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
91	9.30	0.	0.	0.	0.	3.42E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
92	9.40	0.	0.	0.	0.	2.42E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
93	9.50	0.	0.	0.	0.	2.94E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
94	9.60	0.	0.	0.	0.	1.83E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
95	9.70	0.	0.	0.	0.	2.28E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
96	9.80	0.	0.	0.	0.	2.28E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
97	9.90	0.	0.	0.	0.	1.94E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
98	1.00	0.	0.	0.	0.	1.70E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
99	1.10	0.	0.	0.	0.	1.46E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
100	1.20	0.	0.	0.	0.	6.83E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
101	1.30	0.	0.	0.	0.	1.74E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10
102	1.40	0.	0.	0.	0.	1.40E-19	0.	0.	0.	0.	6.79E-14	4.87E-11	1.43E-10	1.43E-10	1.43E-10	1.43E-10	2.27E-10	2.27E-10	2.27E-10

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY BANDS E.V.	02 S-R CENT.	M2 B-M NO. 1	NO BETA	NO GAMMA	NO 2	0- PHOTO-DET (10MS)	FREE-FREE N	0 P.E.	TOTAL AIR P.E.
1 10.70 0.	0.	1.92E 01	0.	0.	0.	9.81E-01 1.03E-03 0.79E 01	0.30E 02 1.00E 02	0.30E 02 1.00E 02	
2 10.60 0.	0.	1.00E 01	0.	0.	0.	9.02E-01 1.04E-03 2.42E-01	0.37E 02 1.02E 01	0.37E 02 1.02E 01	
3 10.50 0.	0.	1.07E 01	0.	0.	0.	9.04E-01 1.09E-03 2.44E-01	0.30E 02 1.00E 01	0.30E 02 1.00E 01	
4 10.40 0.	0.	1.50E 01	0.	0.	0.	9.05E-01 1.12E-03 2.44E-01	0.37E 02 1.07E 01	0.37E 02 1.07E 01	
5 10.30 0.	0.	1.20E 01	0.	0.	0.	9.04E-01 1.15E-03 2.45E-01	0.33E 02 1.00E 01	0.33E 02 1.00E 01	
6 10.20 0.	0.	1.30E 01	0.	0.	0.	9.07E-01 1.19E-03 2.46E-01	0.33E 02 1.00E 01	0.33E 02 1.00E 01	
7 10.10 0.	0.	1.20E 01	0.	0.	0.	9.00E-01 1.22E-03 2.46E-01	0.31E 02 1.00E 01	0.31E 02 1.00E 01	
8 10.00 0.	0.	1.01E 01	0.	0.	0.	9.00E-01 1.26E-03 2.47E-01	0.30E 02 1.14E 01	0.30E 02 1.14E 01	
9 9.90 0.	0.	1.02E 01	0.	0.	0.	9.02E-01 1.30E-03 2.47E-01	0.29E 02 1.15E 01	0.29E 02 1.15E 01	
10 9.80 0.	0.	9.20E 00	0.	0.	0.	9.04E-01 1.34E-03 2.48E-01	0.27E 02 1.00E 01	0.27E 02 1.00E 01	
11 9.70 0.	0.	7.60E 00	0.	0.	0.	9.05E-01 1.36E-03 2.49E-01	0.24E 02 9.00E 00	0.24E 02 9.00E 00	
12 9.60 0.	0.	6.27E 00	0.	0.	0.	9.07E-01 1.43E-03 2.49E-01	0.24E 02 9.00E 00	0.24E 02 9.00E 00	
13 9.50 0.	0.	6.17E 00	0.	0.	0.	9.00E-01 1.47E-03 2.50E-01	0.23E 02 9.00E 00	0.23E 02 9.00E 00	
14 9.40 0.	0.	6.17E 00	0.	0.	0.	1.00E 00 1.52E-03 2.51E-01	0.23E 02 9.00E 00	0.23E 02 9.00E 00	
15 9.30 0.	0.	6.20E 00	0.	0.	0.	1.01E 00 1.57E-03 2.52E-01	0.21E 02 9.00E 00	0.21E 02 9.00E 00	
16 9.20 0.	0.	4.80E 00	0.	0.	0.	1.01E 00 1.62E-03 2.52E-01	0.21E 02 9.00E 00	0.21E 02 9.00E 00	
17 9.10 0.	0.	5.80E 00	0.	0.	0.	1.01E 00 1.66E-03 2.52E-01	0.19E 02 9.14E 00	0.19E 02 9.14E 00	
18 9.00 0.	0.	4.30E 00	0.	0.	0.	1.02E 00 1.73E-03 2.53E-01	0.17E 02 9.14E 00	0.17E 02 9.14E 00	
19 8.90 0.	0.	3.90E 00	0.	0.	0.	1.02E 00 1.79E-03 2.53E-01	0.17E 02 9.14E 00	0.17E 02 9.14E 00	
20 8.80 0.	0.	3.70E 00	0.	0.	0.	1.03E 00 1.86E-03 2.54E-01	0.15E 02 9.00E 00	0.15E 02 9.00E 00	
21 8.70 0.	0.	3.10E 00	0.	0.	0.	1.03E 00 1.90E-03 2.54E-01	0.15E 02 9.00E 00	0.15E 02 9.00E 00	
22 8.60 0.	0.	3.10E 00	0.	0.	0.	1.03E 00 2.06E-03 2.55E-01	0.12E 02 4.33E 00	0.12E 02 4.33E 00	
23 8.50 0.	0.	2.60E 00	0.	0.	0.	1.04E 00 2.13E-03 2.56E-01	0.11E 02 3.63E 00	0.11E 02 3.63E 00	
24 8.40 0.	0.	2.50E 00	0.	0.	0.	1.04E 00 2.13E-03 2.56E-01	0.11E 02 3.77E 00	0.11E 02 3.77E 00	
25 8.30 0.	0.	2.10E 00	0.	0.	0.	1.05E 00 2.31E-03 2.57E-01	0.11E 02 3.29E 00	0.11E 02 3.29E 00	
26 8.20 0.	0.	2.00E 00	0.	0.	0.	1.05E 00 2.29E-03 2.57E-01	0.15E 02 3.20E 00	0.15E 02 3.20E 00	
27 8.10 0.	0.	1.70E 00	0.	0.	0.	1.06E 00 2.38E-03 2.58E-01	0.16E 02 2.92E 00	0.16E 02 2.92E 00	
28 8.00 0.	0.	1.71E 00	0.	0.	0.	1.06E 00 2.47E-03 2.58E-01	0.22E 02 2.91E 00	0.22E 02 2.91E 00	
29 7.90 0.	0.	1.41E 00	0.	0.	0.	1.07E 00 2.57E-03 2.59E-01	0.25E 02 2.62E 00	0.25E 02 2.62E 00	
30 7.80 0.	0.	1.40E 00	0.	0.	0.	1.07E 00 2.67E-03 2.59E-01	0.30E 02 2.64E 00	0.30E 02 2.64E 00	
31 7.70 0.	0.	1.20E 00	0.	0.	0.	1.08E 00 2.77E-03 2.59E-01	0.33E 02 2.42E 00	0.33E 02 2.42E 00	
32 7.60 0.	0.	1.11E 00	0.	0.	0.	1.08E 00 2.86E-03 2.59E-01	0.37E 02 2.34E 00	0.37E 02 2.34E 00	
33 7.50 0.	0.	9.91E-01	0.	7.76E-05	0.	1.09E 00 3.00E-03 2.53E-02	0.41E 02 2.22E 00	0.41E 02 2.22E 00	
34 7.40 0.	0.	9.42E-01	0.	3.43E-04	0.	1.10E 00 3.13E-03 2.56E-02	0.45E 02 2.10E 00	0.45E 02 2.10E 00	
35 7.30 0.	0.	7.92E-01	0.	2.09E-03	0.	1.10E 00 3.24E-03 2.56E-02	0.49E 02 2.05E 00	0.49E 02 2.05E 00	
36 7.20 0.	0.	6.91E-01	0.	9.75E-03	0.	1.11E 00 3.39E-03 2.57E-02	0.52E 02 1.97E 00	0.52E 02 1.97E 00	
37 7.10 0.	0.	6.46E-01	0.	7.38E-02	0.	1.12E 00 3.54E-03 2.57E-02	0.56E 02 1.90E 00	0.56E 02 1.90E 00	
38 7.00 0.	0.	5.71E-01	0.	7.38E-02	0.	1.13E 00 3.69E-03 2.59E-02	0.64E 02 2.02E 00	0.64E 02 2.02E 00	
39 6.90 0.	0.	5.06E-01	0.	2.01E-01	0.	1.13E 00 3.86E-03 2.61E-02	0.64E 02 2.19E 00	0.64E 02 2.19E 00	
40 6.80 0.	0.	4.70E-01	0.	1.15E-01	0.	1.14E 00 4.03E-03 2.62E-02	0.67E 02 2.16E 00	0.67E 02 2.16E 00	
41 6.70 0.	0.	3.97E-01	0.	4.00E-01	0.	1.15E 00 4.21E-03 2.63E-02	0.72E 02 2.15E 00	0.72E 02 2.15E 00	
42 6.60 0.	0.	3.43E-01	0.	3.02E-01	0.	1.16E 00 4.41E-03 2.63E-02	0.77E 02 1.96E 00	0.77E 02 1.96E 00	
43 6.50 0.	0.	2.61E-01	0.	5.11E-01	0.	1.17E 00 4.62E-03 2.63E-02	0.81E 02 2.09E 00	0.81E 02 2.09E 00	
44 6.40 0.	0.	1.60E-01	0.	5.14E-01	0.	1.18E 00 4.84E-03 2.77E-02	0.86E 02 2.05E 00	0.86E 02 2.05E 00	
45 6.30 0.	0.	9.86E-02	0.	2.49E-03	0.	1.19E 00 5.06E-03 2.82E-02	0.92E 02 1.77E 00	0.92E 02 1.77E 00	
46 6.20 0.	0.	5.15E-02	0.	1.12E-02	0.	1.20E 00 5.33E-03 2.82E-02	0.92E 02 1.49E 00	0.92E 02 1.49E 00	
47 6.10 0.	0.	2.27E-02	0.	4.26E-01	0.	1.21E 00 5.60E-03 2.82E-02	0.92E 02 1.49E 00	0.92E 02 1.49E 00	
48 6.00 0.	0.	5.90E-03	0.	4.26E-01	0.	1.22E 00 5.88E-03 2.82E-02	0.92E 02 1.49E 00	0.92E 02 1.49E 00	
49 5.90 0.	0.	3.97E-04	0.	3.79E-02	0.	1.22E 00 6.16E-03 2.82E-02	0.92E 02 1.49E 00	0.92E 02 1.49E 00	
50 5.80 0.	0.	9.86E-06	0.	5.43E-02	0.	1.20E 00 6.45E-03 2.82E-02	0.92E 02 1.49E 00	0.92E 02 1.49E 00	
51 5.70 0.	0.	0.	0.	7.43E-02	0.	1.13E 00 6.86E-03 2.82E-02	0.92E 02 1.49E 00	0.92E 02 1.49E 00	

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TEMPERATURE (DEGREES K) 1200. DENSITY (GM/CC) 1.293E-02 (1.0E 01 NORMAL)

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TEMPERATURE (DEGREES K) 1200. DENSITY (G/CC) 1.293E-03 (11.0E-01 NORMAL)

PHOTON Q2 S-R ENERGY BANDS E.V.	Q2 S-R CONT.	N2 B-W NO. 1	NO Q2TA	AO GAMMA	Q- PHOTO-SET (LOW)	Q- PHOTO-SET (HIGH)	Q P.E.	Q TOTAL ADR
1 10.70 0.	0.	3.08E-01	0.	0.	3.21E-02	3.56E-09	1.27E-01	6.73E-03
2 10.60 0.	0.	3.42E-01	0.	0.	3.21E-02	9.83E-05	3.49E-02	6.71E-03
3 10.50 0.	0.	3.39E-01	0.	0.	3.22E-02	1.01E-04	3.47E-02	6.70E-03
4 10.40 0.	0.	3.11E-01	0.	0.	3.22E-02	1.04E-04	3.48E-02	6.69E-03
5 10.30 0.	0.	2.42E-01	0.	0.	3.23E-02	1.07E-04	3.49E-02	6.67E-03
6 10.20 0.	0.	2.42E-01	0.	0.	3.23E-02	1.10E-04	3.50E-02	6.66E-03
7 10.10 0.	0.	2.42E-01	0.	0.	3.23E-02	1.14E-04	3.50E-02	6.65E-03
8 10.00 0.	0.	2.84E-01	0.	0.	3.24E-02	1.17E-04	3.51E-02	6.64E-03
9 9.90 0.	0.	2.84E-01	0.	0.	3.24E-02	1.21E-04	3.52E-02	6.63E-03
10 9.80 0.	0.	1.80E-01	0.	0.	3.24E-02	1.24E-04	3.52E-02	6.61E-03
11 9.70 0.	0.	1.58E-01	0.	0.	3.24E-02	1.28E-04	3.54E-02	6.59E-03
12 9.60 0.	0.	1.67E-01	0.	0.	3.24E-02	1.31E-04	3.55E-02	6.58E-03
13 9.50 0.	0.	1.37E-01	0.	0.	3.27E-02	1.37E-04	3.56E-02	6.57E-03
14 9.40 0.	0.	1.29E-01	0.	0.	3.28E-02	1.41E-04	3.57E-02	6.55E-03
15 9.30 0.	0.	1.27E-01	0.	0.	3.29E-02	1.44E-04	3.58E-02	6.54E-03
16 9.20 0.	0.	9.95E-02	0.	0.	3.30E-02	1.51E-04	3.59E-02	6.53E-03
17 9.10 0.	0.	1.01E-01	0.	0.	3.32E-02	1.56E-04	3.62E-02	6.52E-03
18 9.00 0.	0.	8.97E-02	0.	0.	3.33E-02	1.61E-04	3.65E-02	6.50E-03
19 8.90 0.	0.	7.91E-02	0.	0.	3.34E-02	1.67E-04	3.67E-02	6.49E-03
20 8.80 0.	0.	7.64E-02	0.	0.	3.36E-02	1.72E-04	3.68E-02	6.47E-03
21 8.70 0.	0.	6.37E-02	0.	0.	3.36E-02	1.78E-04	3.68E-02	6.47E-03
22 8.60 0.	0.	6.41E-02	0.	0.	3.36E-02	1.85E-04	3.68E-02	6.45E-03
23 8.50 0.	0.	5.38E-02	0.	0.	3.36E-02	1.91E-04	3.68E-02	6.44E-03
24 8.40 0.	0.	5.29E-02	0.	0.	3.40E-02	1.98E-04	3.68E-02	6.43E-03
25 8.30 0.	0.	4.26E-02	0.	0.	3.42E-02	2.06E-04	3.68E-02	6.44E-03
26 8.20 0.	0.	4.26E-02	0.	0.	3.42E-02	2.13E-04	3.68E-02	6.44E-03
27 8.10 0.	0.	3.56E-02	0.	0.	3.48E-02	2.21E-04	3.68E-02	6.42E-03
28 8.00 0.	0.	3.45E-02	0.	0.	3.48E-02	2.38E-04	3.68E-02	6.42E-03
29 7.90 0.	0.	2.83E-02	0.	0.	3.49E-02	2.50E-04	3.68E-02	6.40E-03
30 7.80 0.	0.	2.89E-02	0.	0.	3.51E-02	2.68E-04	3.68E-02	6.40E-03
31 7.70 0.	0.	2.44E-02	0.	0.	3.53E-02	2.80E-04	3.68E-02	6.40E-03
32 7.60 0.	0.	2.29E-02	0.	0.	3.55E-02	2.98E-04	3.68E-02	6.40E-03
33 7.50 0.	0.	2.81E-02	0.	0.	3.57E-02	3.14E-04	3.68E-02	6.40E-03
34 7.40 0.	0.	1.73E-02	0.	0.	3.59E-02	3.29E-04	3.68E-02	6.40E-03
35 7.30 0.	0.	1.60E-02	0.	0.	3.60E-02	3.42E-04	3.68E-02	6.40E-03
36 7.20 0.	0.	1.40E-02	0.	0.	3.63E-02	3.55E-04	3.68E-02	6.40E-03
37 7.10 0.	0.	1.30E-02	0.	0.	3.65E-02	3.68E-04	3.68E-02	6.40E-03
38 7.00 2.60E-06	0.	1.35E-02	0.	0.	3.68E-02	3.81E-04	3.68E-02	6.40E-03
39 6.90 5.34E-06	0.	1.35E-02	0.	0.	3.68E-02	3.94E-04	3.68E-02	6.40E-03
40 6.80 4.52E-06	0.	1.02E-02	0.	0.	3.71E-02	4.07E-04	3.68E-02	6.40E-03
41 6.70 3.74E-06	0.	9.31E-03	0.	0.	3.74E-02	4.20E-04	3.68E-02	6.40E-03
42 6.60 1.91E-06	0.	6.03E-03	0.	0.	3.77E-02	4.33E-04	3.68E-02	6.40E-03
43 6.50 1.01E-06	0.	3.92E-03	0.	0.	3.80E-02	4.46E-04	3.68E-02	6.40E-03
44 6.40 1.44E-06	0.	3.45E-03	0.	0.	3.83E-02	4.59E-04	3.68E-02	6.40E-03
45 6.30 3.05E-06	0.	1.96E-03	0.	0.	3.86E-02	4.72E-04	3.68E-02	6.40E-03
46 6.20 9.19E-06	0.	1.04E-03	0.	0.	3.89E-02	4.85E-04	3.68E-02	6.40E-03
47 6.10 3.74E-05	0.	4.66E-04	0.	0.	3.92E-02	4.98E-04	3.68E-02	6.40E-03
48 6.00 10.08E-05	0.	1.13E-04	0.	0.	3.95E-02	5.11E-04	3.68E-02	6.40E-03
49 5.90 1.63E-04	0.	8.08E-06	0.	0.	3.98E-02	5.24E-04	3.68E-02	6.40E-03
50 5.80 2.54E-04	0.	2.08E-07	0.	0.	4.01E-02	5.37E-04	3.68E-02	6.40E-03
51 5.70 3.07E-04	0.	0.	0.	0.	4.04E-02	5.50E-04	3.68E-02	6.40E-03

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ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-03 (10.0E-01 NORMAL)		0- FREE-FREE		N		O		TOTAL AIR	
PHOTON 02 S-R		2ND POS. 1ST NEG.		NO		NO		NO		NO		P.E.	
ENERGY BANDS		2ND POS. 1ST NEG.		NO		NO		NO		NO		P.E.	
52		5.60 3.87E-04 0.		0.		0.		0.		0.		0.	
53		5.50 4.07E-04 0.		0.		0.		0.		0.		0.	
54		5.40 4.33E-04 0.		0.		0.		0.		0.		0.	
55		5.30 4.58E-04 0.		0.		0.		0.		0.		0.	
56		5.20 4.83E-04 0.		0.		0.		0.		0.		0.	
57		5.10 5.08E-04 0.		0.		0.		0.		0.		0.	
58		5.00 5.33E-04 0.		0.		0.		0.		0.		0.	
59		4.90 5.58E-04 0.		0.		0.		0.		0.		0.	
60		4.80 5.83E-04 0.		0.		0.		0.		0.		0.	
61		4.70 6.08E-04 0.		0.		0.		0.		0.		0.	
62		4.60 6.33E-04 0.		0.		0.		0.		0.		0.	
63		4.50 6.58E-04 0.		0.		0.		0.		0.		0.	
64		4.40 6.83E-04 0.		0.		0.		0.		0.		0.	
65		4.30 7.08E-04 0.		0.		0.		0.		0.		0.	
66		4.20 7.33E-04 0.		0.		0.		0.		0.		0.	
67		4.10 7.58E-04 0.		0.		0.		0.		0.		0.	
68		4.00 7.83E-04 0.		0.		0.		0.		0.		0.	
69		3.90 8.08E-04 0.		0.		0.		0.		0.		0.	
70		3.80 8.33E-04 0.		0.		0.		0.		0.		0.	
71		3.70 8.58E-04 0.		0.		0.		0.		0.		0.	
72		3.60 8.83E-04 0.		0.		0.		0.		0.		0.	
73		3.50 9.08E-04 0.		0.		0.		0.		0.		0.	
74		3.40 9.33E-04 0.		0.		0.		0.		0.		0.	
75		3.30 9.58E-04 0.		0.		0.		0.		0.		0.	
76		3.20 9.83E-04 0.		0.		0.		0.		0.		0.	
77		3.10 1.00E-03 0.		0.		0.		0.		0.		0.	
78		3.00 1.02E-03 0.		0.		0.		0.		0.		0.	
79		2.90 1.04E-03 0.		0.		0.		0.		0.		0.	
80		2.80 1.06E-03 0.		0.		0.		0.		0.		0.	
81		2.70 1.08E-03 0.		0.		0.		0.		0.		0.	
82		2.60 1.10E-03 0.		0.		0.		0.		0.		0.	
83		2.50 1.12E-03 0.		0.		0.		0.		0.		0.	
84		2.40 1.14E-03 0.		0.		0.		0.		0.		0.	
85		2.30 1.16E-03 0.		0.		0.		0.		0.		0.	
86		2.20 1.18E-03 0.		0.		0.		0.		0.		0.	
87		2.10 1.20E-03 0.		0.		0.		0.		0.		0.	
88		2.00 1.22E-03 0.		0.		0.		0.		0.		0.	
89		1.90 1.24E-03 0.		0.		0.		0.		0.		0.	
90		1.80 1.26E-03 0.		0.		0.		0.		0.		0.	
91		1.70 1.28E-03 0.		0.		0.		0.		0.		0.	
92		1.60 1.30E-03 0.		0.		0.		0.		0.		0.	
93		1.50 1.32E-03 0.		0.		0.		0.		0.		0.	
94		1.40 1.34E-03 0.		0.		0.		0.		0.		0.	
95		1.30 1.36E-03 0.		0.		0.		0.		0.		0.	
96		1.20 1.38E-03 0.		0.		0.		0.		0.		0.	
97		1.10 1.40E-03 0.		0.		0.		0.		0.		0.	
98		1.00 1.42E-03 0.		0.		0.		0.		0.		0.	
99		0.90 1.44E-03 0.		0.		0.		0.		0.		0.	
100		0.80 1.46E-03 0.		0.		0.		0.		0.		0.	
101		0.70 1.48E-03 0.		0.		0.		0.		0.		0.	
102		0.60 1.50E-03 0.		0.		0.		0.		0.		0.	

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.2932-04		(19.05-02 NORMAL)		0		TOTAL AIR	
E.V.	BANDS	NO. 1	NO. 2	BETA	GAMMA	NO. 2	PHOTO-DET (1000)	O- FUEL-FREE	M	P.E.	O	P.F.	
1	10.70 0.	0.	0.	0.	0.	0.	0.	9.95E-04	9.28E-04	1.24E-03	0.07E-04	1.27E-03	0.
2	10.60 0.	0.	0.	0.	0.	0.	0.	9.95E-04	9.59E-04	3.50E-03	0.04E-04	0.93E-03	0.
3	10.50 0.	0.	0.	0.	0.	0.	0.	9.94E-04	9.87E-04	3.40E-03	0.05E-04	0.91E-03	0.
4	10.40 0.	0.	0.	0.	0.	0.	0.	9.97E-04	1.01E-03	3.01E-03	0.03E-04	0.63E-03	0.
5	10.30 0.	0.	0.	0.	0.	0.	0.	9.99E-04	1.04E-03	3.62E-03	0.02E-04	0.11E-03	0.
6	10.20 0.	0.	0.	0.	0.	0.	0.	10.00E-04	1.07E-03	3.33E-03	0.01E-04	0.19E-03	0.
7	10.10 0.	0.	0.	0.	0.	0.	0.	10.00E-04	1.10E-03	3.03E-03	0.04E-04	7.92E-03	0.
8	10.00 0.	0.	0.	0.	0.	0.	0.	10.00E-04	1.14E-03	3.44E-03	0.59E-04	7.51E-03	0.
9	9.90 0.	0.	0.	0.	0.	0.	0.	10.00E-04	1.17E-03	3.55E-03	0.57E-04	7.54E-03	0.
10	9.80 0.	0.	0.	0.	0.	0.	0.	1.01E-03	1.21E-03	3.44E-03	0.59E-04	7.34E-03	0.
11	9.70 0.	0.	0.	0.	0.	0.	0.	1.01E-03	1.25E-03	3.07E-03	0.54E-04	7.02E-03	0.
12	9.60 0.	0.	0.	0.	0.	0.	0.	1.01E-03	1.29E-03	3.08E-03	0.53E-04	7.10E-03	0.
13	9.50 0.	0.	0.	0.	0.	0.	0.	1.01E-03	1.33E-03	3.09E-03	0.51E-04	6.84E-03	0.
14	9.40 0.	0.	0.	0.	0.	0.	0.	1.01E-03	1.37E-03	3.70E-03	0.50E-04	6.72E-03	0.
15	9.30 0.	0.	0.	0.	0.	0.	0.	1.02E-03	1.42E-03	3.71E-03	0.49E-04	6.74E-03	0.
16	9.20 0.	0.	0.	0.	0.	0.	0.	1.02E-03	1.46E-03	3.72E-03	0.48E-04	6.47E-03	0.
17	9.10 0.	0.	0.	0.	0.	0.	0.	1.03E-03	1.51E-03	3.11E-03	0.46E-04	3.89E-03	0.
18	9.00 0.	0.	0.	0.	0.	0.	0.	1.03E-03	1.56E-03	3.11E-03	0.45E-04	3.79E-03	0.
19	8.90 0.	0.	0.	0.	0.	0.	0.	1.03E-03	1.62E-03	3.11E-03	0.44E-04	3.69E-03	0.
20	8.80 0.	0.	0.	0.	0.	0.	0.	1.04E-03	1.67E-03	3.11E-03	0.43E-04	3.42E-03	0.
21	8.70 0.	0.	0.	0.	0.	0.	0.	1.04E-03	1.73E-03	3.11E-03	0.41E-04	3.40E-03	0.
22	8.60 0.	0.	0.	0.	0.	0.	0.	1.04E-03	1.79E-03	3.11E-03	0.40E-04	3.30E-03	0.
23	8.50 0.	0.	0.	0.	0.	0.	0.	1.05E-03	1.86E-03	3.11E-03	0.39E-04	3.39E-03	0.
24	8.40 0.	0.	0.	0.	0.	0.	0.	1.05E-03	1.92E-03	3.11E-03	0.38E-04	3.30E-03	0.
25	8.30 0.	0.	0.	0.	0.	0.	0.	1.06E-03	1.99E-03	3.11E-03	0.37E-04	3.20E-03	0.
26	8.20 0.	0.	0.	0.	0.	0.	0.	1.06E-03	2.07E-03	3.11E-03	0.36E-04	3.20E-03	0.
27	8.10 0.	0.	0.	0.	0.	0.	0.	1.07E-03	2.15E-03	3.11E-03	0.35E-04	3.22E-03	0.
28	8.00 0.	0.	0.	0.	0.	0.	0.	1.08E-03	2.23E-03	3.11E-03	0.34E-04	3.22E-03	0.
29	7.90 0.	0.	0.	0.	0.	0.	0.	1.08E-03	2.31E-03	3.11E-03	0.33E-04	3.17E-03	0.
30	7.80 0.	0.	0.	0.	0.	0.	0.	1.09E-03	2.40E-03	3.11E-03	0.32E-04	3.19E-03	0.
31	7.70 0.	0.	0.	0.	0.	0.	0.	1.09E-03	2.50E-03	3.11E-03	0.31E-04	3.19E-03	0.
32	7.60 0.	0.	0.	0.	0.	0.	0.	1.10E-03	2.60E-03	3.11E-03	0.30E-04	3.14E-03	0.
33	7.50 0.	0.	0.	0.	0.	0.	0.	1.10E-03	2.71E-03	3.11E-03	0.29E-04	3.13E-03	0.
34	7.40 0.	0.	0.	0.	0.	0.	0.	1.11E-03	2.82E-03	3.11E-03	0.28E-04	3.11E-03	0.
35	7.30 0.	0.	0.	0.	0.	0.	0.	1.12E-03	2.93E-03	3.11E-03	0.27E-04	3.11E-03	0.
36	7.20 0.	0.	0.	0.	0.	0.	0.	1.12E-03	3.04E-03	3.11E-03	0.26E-04	3.11E-03	0.
37	7.10 0.	0.	0.	0.	0.	0.	0.	1.13E-03	3.15E-03	3.11E-03	0.25E-04	3.12E-03	0.
38	7.00 2.74E-08	0.	0.	0.	0.	0.	0.	1.14E-03	3.26E-03	3.11E-03	0.24E-04	3.14E-03	0.
39	6.90 5.27E-08	0.	0.	0.	0.	0.	0.	1.15E-03	3.38E-03	3.11E-03	0.23E-04	3.14E-03	0.
40	6.80 4.49E-08	0.	0.	0.	0.	0.	0.	1.16E-03	3.50E-03	3.11E-03	0.22E-04	3.10E-03	0.
41	6.70 3.16E-08	0.	0.	0.	0.	0.	0.	1.17E-03	3.62E-03	3.11E-03	0.21E-04	3.19E-03	0.
42	6.60 1.68E-08	0.	0.	0.	0.	0.	0.	1.18E-03	3.74E-03	3.11E-03	0.20E-04	3.18E-03	0.
43	6.50 1.04E-08	0.	0.	0.	0.	0.	0.	1.19E-03	3.86E-03	3.11E-03	0.19E-04	3.22E-03	0.
44	6.40 1.44E-08	0.	0.	0.	0.	0.	0.	1.20E-03	4.00E-03	3.11E-03	0.18E-04	3.23E-03	0.
45	6.30 3.01E-08	0.	0.	0.	0.	0.	0.	1.21E-03	4.16E-03	3.11E-03	0.17E-04	3.24E-03	0.
46	6.20 9.04E-08	0.	0.	0.	0.	0.	0.	1.22E-03	4.33E-03	3.11E-03	0.16E-04	3.24E-03	0.
47	6.10 3.68E-07	0.	0.	0.	0.	0.	0.	1.23E-03	4.50E-03	3.11E-03	0.15E-04	3.30E-03	0.
48	6.00 9.84E-07	0.	0.	0.	0.	0.	0.	1.24E-03	4.68E-03	3.11E-03	0.14E-04	3.28E-03	0.
49	5.90 1.62E-06	0.	0.	0.	0.	0.	0.	1.25E-03	4.86E-03	3.11E-03	0.13E-04	3.31E-03	0.
50	5.80 2.50E-06	0.	0.	0.	0.	0.	0.	1.26E-03	5.05E-03	3.11E-03	0.12E-04	3.32E-03	0.
51	5.70 3.02E-06	0.	0.	0.	0.	0.	0.	1.28E-03	5.19E-03	3.11E-03	0.11E-04	3.28E-03	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		12000.		1.203E-04		(10.0E-02 NORMAL)		P.E.		TOTAL AIR	
ENERGY BANDS	1ST POS.	2ND POS.	M2	N2	RETA	NO	GAMMA	VIB-ROT	NO	2	PHOTO-DET (IONS)	0-	FRES-FREE	N	P.E.
52	5.60	3.81E-06	0.	0.	1.02E-05	6.77E-05	0.	0.	1.08E-03	6.53E-05	1.24E-03	7.90E-04	3.25E-03	0.	0.
53	5.50	4.01E-06	0.	0.	1.24E-05	6.36E-05	0.	0.	1.07E-03	6.09E-05	1.27E-03	8.09E-04	3.29E-03	0.	0.
54	5.40	4.26E-06	0.	0.	1.09E-05	6.44E-05	0.	0.	1.07E-03	7.30E-05	1.29E-03	8.21E-04	3.31E-03	0.	0.
55	5.30	4.15E-06	0.	0.	1.12E-05	6.34E-05	0.	0.	1.08E-03	7.71E-05	1.32E-03	8.35E-04	3.38E-03	0.	0.
56	5.20	3.05E-06	0.	0.	1.18E-05	6.45E-05	0.	0.	1.08E-03	8.16E-05	1.35E-03	8.53E-04	3.42E-03	0.	0.
57	5.10	2.87E-06	0.	0.	1.10E-05	6.51E-05	0.	0.	1.09E-03	8.60E-05	1.38E-03	8.71E-04	3.46E-03	0.	0.
58	5.00	2.14E-06	0.	0.	1.03E-05	6.92E-05	0.	0.	1.11E-03	9.19E-05	1.42E-03	8.99E-04	3.47E-03	0.	0.
59	4.90	1.80E-06	0.	0.	1.13E-05	6.74E-05	0.	0.	1.12E-03	9.77E-05	1.45E-03	9.26E-04	3.52E-03	0.	0.
60	4.80	1.79E-06	0.	0.	1.20E-05	6.74E-05	0.	0.	1.13E-03	1.04E-04	1.51E-03	9.26E-04	3.52E-03	0.	0.
61	4.70	1.95E-06	0.	0.	1.16E-05	6.44E-05	0.	0.	1.13E-03	1.11E-04	1.55E-03	9.58E-04	3.48E-03	0.	0.
62	4.60	2.33E-06	0.	0.	1.17E-05	6.33E-05	0.	0.	1.14E-03	1.18E-04	1.61E-03	9.73E-04	3.49E-03	0.	0.
63	4.50	2.37E-06	0.	0.	1.04E-05	6.81E-05	0.	0.	1.15E-03	1.26E-04	1.66E-03	9.97E-04	3.48E-03	0.	0.
64	4.40	2.44E-06	0.	0.	1.02E-05	6.80E-05	0.	0.	1.16E-03	1.33E-04	1.74E-03	1.02E-03	3.41E-03	0.	0.
65	4.30	2.24E-06	0.	0.	9.45E-06	6.19E-05	0.	0.	1.17E-03	1.45E-04	1.82E-03	1.05E-03	4.25E-03	0.	0.
66	4.20	2.04E-06	0.	0.	9.85E-06	6.99E-05	0.	0.	1.18E-03	1.56E-04	1.90E-03	1.07E-03	4.52E-03	0.	0.
67	4.10	1.87E-06	0.	0.	9.32E-06	6.38E-05	0.	0.	1.18E-03	1.67E-04	1.98E-03	1.09E-03	4.49E-03	0.	0.
68	4.00	1.67E-06	0.	0.	8.77E-06	6.12E-05	0.	0.	1.19E-03	1.80E-04	2.03E-03	1.09E-03	4.49E-03	0.	0.
69	3.90	1.37E-06	0.	0.	1.32E-06	7.46E-07	0.	0.	1.18E-03	1.94E-04	1.82E-03	2.72E-04	3.44E-03	0.	0.
70	3.80	1.48E-06	0.	0.	1.98E-06	8.24E-06	0.	0.	1.18E-03	2.10E-04	1.84E-03	2.92E-04	3.42E-03	0.	0.
71	3.70	1.26E-06	0.	0.	2.34E-06	6.62E-06	0.	0.	1.16E-03	2.29E-04	1.44E-03	3.13E-04	3.35E-03	0.	0.
72	3.60	1.11E-06	0.	0.	1.39E-06	7.19E-06	0.	0.	1.08E-03	2.48E-04	1.58E-03	3.49E-04	3.73E-03	0.	0.
73	3.50	1.00E-06	0.	0.	2.08E-06	8.14E-06	0.	0.	0.93E-03	2.70E-04	1.61E-03	3.68E-04	4.58E-03	0.	0.
74	3.40	8.66E-07	0.	0.	1.11E-06	8.08E-06	0.	0.	0.73E-03	2.94E-04	1.88E-03	4.32E-04	5.30E-03	0.	0.
75	3.30	6.95E-07	0.	0.	1.17E-06	8.54E-06	0.	0.	0.74E-03	3.22E-04	2.00E-03	4.75E-04	5.89E-03	0.	0.
76	3.20	5.84E-07	0.	0.	7.06E-06	8.32E-06	0.	0.	0.75E-03	3.59E-04	2.21E-03	5.21E-04	6.46E-03	0.	0.
77	3.10	5.42E-07	0.	0.	5.41E-06	4.27E-06	0.	0.	0.74E-03	3.89E-04	2.41E-03	5.67E-04	6.13E-03	0.	0.
78	3.00	4.68E-07	0.	0.	3.17E-06	3.67E-06	0.	0.	0.70E-03	4.18E-04	2.62E-03	6.13E-04	6.46E-03	0.	0.
79	2.90	3.78E-07	0.	0.	1.92E-06	2.31E-06	0.	0.	0.79E-03	4.77E-04	2.83E-03	6.60E-04	6.80E-03	0.	0.
80	2.80	3.64E-07	0.	0.	9.12E-06	1.04E-06	0.	0.	0.79E-03	5.30E-04	3.07E-03	7.12E-04	5.01E-03	0.	0.
81	2.70	2.34E-07	0.	0.	4.21E-06	1.64E-06	0.	0.	0.79E-03	5.92E-04	3.32E-03	7.68E-04	5.45E-03	0.	0.
82	2.60	1.03E-07	0.	0.	2.12E-06	1.73E-06	0.	0.	0.79E-03	6.63E-04	3.60E-03	8.26E-04	5.45E-03	0.	0.
83	2.50	7.00E-09	0.	0.	2.90E-07	8.52E-08	0.	0.	0.79E-03	7.42E-04	3.87E-03	8.82E-04	5.45E-03	0.	0.
84	2.40	0.	0.	0.	1.40E-05	8.79E-09	0.	0.	0.79E-03	8.45E-04	4.72E-03	4.63E-04	6.03E-03	0.	0.
85	2.30	0.	0.	0.	5.04E-05	0.	0.	0.	0.79E-03	9.61E-04	5.47E-03	5.55E-04	5.61E-03	0.	0.
86	2.20	0.	0.	0.	1.17E-04	0.	0.	0.	0.79E-03	1.10E-03	6.10E-03	6.60E-04	6.46E-03	0.	0.
87	2.10	0.	0.	0.	1.45E-04	0.	0.	0.	0.79E-03	1.29E-03	6.71E-03	7.82E-04	7.43E-03	0.	0.
88	2.00	0.	0.	0.	2.59E-04	0.	0.	0.	0.79E-03	1.47E-03	7.45E-03	8.95E-04	8.22E-03	0.	0.
89	1.90	0.	0.	0.	4.34E-04	0.	0.	0.	0.79E-03	1.72E-03	8.10E-03	1.02E-03	9.06E-03	0.	0.
90	1.80	0.	0.	0.	3.41E-04	0.	0.	0.	0.79E-03	2.02E-03	8.72E-03	1.22E-03	1.14E-02	0.	0.
91	1.70	0.	0.	0.	4.07E-04	0.	0.	0.	0.79E-03	2.41E-03	9.72E-03	1.48E-03	1.35E-02	0.	0.
92	1.60	0.	0.	0.	2.91E-04	0.	0.	0.	0.79E-03	2.89E-03	1.01E-02	1.73E-03	1.54E-02	0.	0.
93	1.50	0.	0.	0.	3.50E-04	0.	0.	0.	0.79E-03	3.52E-03	1.20E-02	2.09E-03	1.69E-02	0.	0.
94	1.40	0.	0.	0.	3.78E-04	0.	0.	0.	0.79E-03	4.34E-03	1.57E-02	2.46E-03	2.87E-02	0.	0.
95	1.30	0.	0.	0.	2.70E-04	0.	0.	0.	0.79E-03	5.30E-03	1.90E-02	3.22E-03	2.87E-02	0.	0.
96	1.20	0.	0.	0.	2.43E-04	0.	0.	0.	0.79E-03	6.40E-03	2.44E-02	3.11E-03	3.14E-02	0.	0.
97	1.10	0.	0.	0.	2.33E-04	0.	0.	0.	0.79E-03	7.60E-03	2.95E-02	4.35E-03	4.25E-02	0.	0.
98	1.00	0.	0.	0.	2.14E-04	0.	0.	0.	0.79E-03	8.95E-03	3.55E-02	5.13E-03	5.46E-02	0.	0.
99	0.90	0.	0.	0.	1.75E-04	0.	0.	0.	0.79E-03	1.05E-02	4.25E-02	5.90E-03	6.66E-02	0.	0.
100	0.80	0.	0.	0.	8.25E-05	0.	0.	0.	0.79E-03	1.21E-02	4.92E-02	6.46E-03	8.06E-02	0.	0.
101	0.70	0.	0.	0.	2.07E-05	0.	0.	0.	0.79E-03	1.40E-02	5.73E-02	7.22E-03	1.12E-01	0.	0.
102	0.60	0.	0.	0.	2.09E-06	0.	0.	0.	0.79E-03	1.61E-02	6.60E-02	8.06E-03	1.12E-01	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-05 (10.0E-03 NORMAL)		0- FREE-FREE		N		0		TOTAL AIR	
						PHOTO-MET (IONS)		P.E.		P.E.			
PHOTON ENERGY E.V.	02 S-R BANDS	02 S-R CONT.	N2 B-W NO. 1	NO BETA	NO GAMMA	NO 2	0- PHOTO-MET (IONS)	FREE-FREE (IONS)	N P.E.	0 P.E.	0 TOTAL AIR		
1 10.70 0.	0.	0.	3.53E-05	0.	0.	0.	2.04E-05	6.50E-07	1.14E-01	4.38E-05	1.14E-01		
2 10.60 0.	0.	0.	3.10E-05	0.	0.	0.	2.04E-05	6.74E-07	3.20E-04	4.52E-05	4.52E-04		
3 10.50 0.	0.	0.	3.07E-05	0.	0.	0.	2.05E-05	6.80E-07	3.30E-04	4.20E-05	4.53E-04		
4 10.40 0.	0.	0.	2.82E-05	0.	0.	0.	2.05E-05	6.93E-07	3.31E-04	6.27E-05	4.52E-04		
5 10.30 0.	0.	0.	2.37E-05	0.	0.	0.	2.04E-05	6.93E-07	3.31E-04	6.27E-05	4.40E-04		
6 10.20 0.	0.	0.	2.30E-05	0.	0.	0.	2.04E-05	6.92E-07	3.33E-04	6.24E-05	4.40E-04		
7 10.10 0.	0.	0.	2.20E-05	0.	0.	0.	2.04E-05	6.91E-07	3.34E-04	6.23E-05	4.40E-04		
8 10.00 0.	0.	0.	1.95E-05	0.	0.	0.	2.07E-05	6.91E-07	3.34E-04	6.22E-05	4.45E-04		
9 9.90 0.	0.	0.	1.80E-05	0.	0.	0.	2.07E-05	6.97E-07	3.35E-04	6.21E-05	4.46E-04		
10 9.80 0.	0.	0.	1.70E-05	0.	0.	0.	2.08E-05	6.97E-07	3.36E-04	6.19E-05	4.45E-04		
11 9.70 0.	0.	0.	1.41E-05	0.	0.	0.	2.08E-05	6.97E-07	3.37E-04	6.18E-05	4.45E-04		
12 9.60 0.	0.	0.	1.52E-05	0.	0.	0.	2.09E-05	6.97E-07	3.38E-04	6.17E-05	4.45E-04		
13 9.50 0.	0.	0.	1.24E-05	0.	0.	0.	2.09E-05	6.97E-07	3.39E-04	6.15E-05	4.45E-04		
14 9.40 0.	0.	0.	1.13E-05	0.	0.	0.	2.09E-05	6.97E-07	3.40E-04	6.14E-05	4.45E-04		
15 9.30 0.	0.	0.	1.15E-05	0.	0.	0.	2.09E-05	6.97E-07	3.41E-04	6.13E-05	4.46E-04		
16 9.20 0.	0.	0.	9.97E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	6.12E-05	4.46E-04		
17 9.10 0.	0.	0.	9.10E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	6.11E-05	4.46E-04		
18 9.00 0.	0.	0.	8.08E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	6.10E-05	4.46E-04		
19 8.90 0.	0.	0.	7.14E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	6.09E-05	4.46E-04		
20 8.80 0.	0.	0.	6.93E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	6.08E-05	4.46E-04		
21 8.70 0.	0.	0.	5.73E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	6.07E-05	4.46E-04		
22 8.60 0.	0.	0.	5.83E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	6.06E-05	4.46E-04		
23 8.50 0.	0.	0.	4.87E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	6.05E-05	4.46E-04		
24 8.40 0.	0.	0.	4.74E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	6.04E-05	4.46E-04		
25 8.30 0.	0.	0.	3.86E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	6.03E-05	4.46E-04		
26 8.20 0.	0.	0.	3.84E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	6.02E-05	4.46E-04		
27 8.10 0.	0.	0.	3.17E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	6.01E-05	4.46E-04		
28 8.00 0.	0.	0.	3.13E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	6.00E-05	4.46E-04		
29 7.90 0.	0.	0.	2.50E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.99E-05	4.46E-04		
30 7.80 0.	0.	0.	2.62E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.98E-05	4.46E-04		
31 7.70 0.	0.	0.	2.21E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.97E-05	4.46E-04		
32 7.60 0.	0.	0.	2.04E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.96E-05	4.46E-04		
33 7.50 0.	0.	0.	1.92E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.95E-05	4.46E-04		
34 7.40 0.	0.	0.	1.50E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.94E-05	4.46E-04		
35 7.30 0.	0.	0.	1.45E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.93E-05	4.46E-04		
36 7.20 0.	0.	0.	1.27E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.92E-05	4.46E-04		
37 7.10 0.	0.	0.	1.18E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.91E-05	4.46E-04		
38 7.00 2.46E-10	0.	0.	1.05E-06	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.90E-05	4.46E-04		
39 6.90 4.71E-10	0.	0.	9.20E-07	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.89E-05	4.46E-04		
40 6.80 3.97E-10	0.	0.	5.52E-07	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.88E-05	4.46E-04		
41 6.70 2.82E-10	0.	0.	7.27E-07	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.87E-05	4.46E-04		
42 6.60 1.68E-10	0.	0.	6.28E-07	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.86E-05	4.46E-04		
43 6.50 9.46E-11	0.	0.	4.70E-07	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.85E-05	4.46E-04		
44 6.40 1.29E-10	0.	0.	3.10E-07	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.84E-05	4.46E-04		
45 6.30 2.68E-10	0.	0.	1.91E-07	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.83E-05	4.46E-04		
46 6.20 6.07E-10	0.	0.	9.41E-08	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.82E-05	4.46E-04		
47 6.10 3.29E-09	0.	0.	4.17E-08	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.81E-05	4.46E-04		
48 6.00 8.78E-09	0.	0.	1.02E-08	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.80E-05	4.46E-04		
49 5.90 1.45E-08	0.	0.	3.24E-10	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.79E-05	4.46E-04		
50 5.80 2.23E-08	0.	0.	1.61E-11	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.78E-05	4.46E-04		
51 5.70 2.70E-08	0.	0.	0.	0.	0.	0.	2.09E-05	6.97E-07	3.42E-04	5.77E-05	4.46E-04		

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 12000. DENSITY (GM/CC) 1.293E-05 (10.0E-03 NORMAL)

PHOTON Q2 S-R ENERGY BANDS	N2 1ST POS.	N2 2ND POS.	N2 3RD POS.	BETA	AD GAMMA	NO VIB-RAT	NO 2	0- PHOTO-DET (IONS)	FREE-PRICE P.E.	0 P.E.	TOTAL AIR P.E.
52 5.60 3.48E-08 0.	0.	0.	0.	0.81E-08 5.87E-07 0.	0.	0.	0.	3.03E-05 5.90E-06 1.14E-04 7.53E-05 2.27E-04			
53 5.50 3.58E-08 0.	0.	0.	0.	1.08E-07 5.54E-07 0.	0.	0.	0.	3.05E-05 6.31E-06 1.16E-04 7.64E-05 2.38E-04			
54 5.40 3.68E-08 0.	0.	0.	0.	9.43E-08 4.04E-07 0.	0.	0.	0.	3.06E-05 6.47E-06 1.18E-04 7.76E-05 2.44E-04			
55 5.30 3.78E-08 0.	0.	0.	0.	9.69E-08 5.53E-07 0.	0.	0.	0.	3.08E-05 7.06E-06 1.21E-04 8.09E-05 2.58E-04			
56 5.20 3.88E-08 0.	0.	0.	0.	1.02E-07 3.60E-07 0.	0.	0.	0.	3.10E-05 7.48E-06 1.23E-04 8.46E-05 2.73E-04			
57 5.10 3.98E-08 0.	0.	0.	0.	10.00E-08 4.78E-07 0.	0.	0.	0.	3.13E-05 7.93E-06 1.27E-04 8.93E-05 2.90E-04			
58 5.00 4.08E-08 0.	0.	0.	0.	8.97E-08 4.27E-07 0.	0.	0.	0.	3.16E-05 8.42E-06 1.32E-04 9.42E-05 3.09E-04			
59 4.90 4.18E-08 0.	0.	0.	0.	1.08E-07 4.45E-07 0.	0.	0.	0.	3.18E-05 8.95E-06 1.36E-04 9.97E-05 3.29E-04			
60 4.80 4.28E-08 0.	0.	0.	0.	1.04E-07 4.11E-07 0.	0.	0.	0.	3.21E-05 9.52E-06 1.40E-04 1.05E-04 3.50E-04			
61 4.70 4.38E-08 0.	0.	0.	0.	1.01E-07 3.61E-07 0.	0.	0.	0.	3.24E-05 1.01E-05 1.43E-04 1.07E-04 3.72E-04			
62 4.60 4.48E-08 0.	0.	0.	0.	1.02E-07 3.32E-07 0.	0.	0.	0.	3.26E-05 1.08E-05 1.46E-04 1.09E-04 3.95E-04			
63 4.50 4.58E-08 0.	0.	0.	0.	8.99E-08 2.44E-07 0.	0.	0.	0.	3.29E-05 1.16E-05 1.49E-04 1.12E-04 4.19E-04			
64 4.40 4.68E-08 0.	0.	0.	0.	1.72E-07 0.	0.	0.	0.	3.31E-05 1.24E-05 1.52E-04 1.15E-04 4.44E-04			
65 4.30 4.78E-08 0.	0.	0.	0.	8.10E-08 1.03E-07 0.	0.	0.	0.	3.34E-05 1.33E-05 1.57E-04 1.19E-04 4.70E-04			
66 4.20 4.88E-08 0.	0.	0.	0.	8.54E-08 7.79E-08 0.	0.	0.	0.	3.37E-05 1.42E-05 1.62E-04 1.23E-04 4.97E-04			
67 4.10 4.98E-08 0.	0.	0.	0.	8.08E-08 2.07E-08 0.	0.	0.	0.	3.39E-05 1.53E-05 1.67E-04 1.28E-04 5.25E-04			
68 4.00 5.08E-08 0.	0.	0.	0.	7.61E-08 1.58E-08 0.	0.	0.	0.	3.39E-05 1.65E-05 1.72E-04 1.33E-04 5.54E-04			
69 3.90 5.18E-08 0.	0.	0.	0.	1.11E-08 6.72E-08 6.47E-09 0.	0.	0.	0.	3.37E-05 1.78E-05 1.77E-04 1.38E-04 5.84E-04			
70 3.80 5.28E-08 0.	0.	0.	0.	1.67E-08 5.03E-08 7.14E-09 0.	0.	0.	0.	3.31E-05 1.93E-05 1.84E-04 1.44E-04 6.15E-04			
71 3.70 5.38E-08 0.	0.	0.	0.	1.97E-08 4.47E-08 5.74E-09 0.	0.	0.	0.	3.11E-05 2.09E-05 1.92E-04 1.51E-04 6.46E-04			
72 3.60 5.48E-08 0.	0.	0.	0.	1.72E-08 3.95E-08 4.24E-09 0.	0.	0.	0.	3.10E-05 2.27E-05 2.01E-04 1.58E-04 6.78E-04			
73 3.50 5.58E-08 0.	0.	0.	0.	1.68E-08 2.25E-08 4.65E-09 0.	0.	0.	0.	2.84E-05 2.47E-05 2.17E-04 1.67E-04 7.11E-04			
74 3.40 5.68E-08 0.	0.	0.	0.	9.32E-07 2.25E-06 5.17E-08 0.	0.	0.	0.	1.64E-05 2.70E-05 2.32E-04 1.76E-04 7.45E-04			
75 3.30 5.78E-08 0.	0.	0.	0.	9.82E-07 1.08E-05 3.94E-08 0.	0.	0.	0.	1.64E-05 2.95E-05 2.48E-04 1.86E-04 7.80E-04			
76 3.20 5.88E-08 0.	0.	0.	0.	5.94E-07 2.32E-05 4.05E-08 0.	0.	0.	0.	1.64E-05 3.24E-05 2.65E-04 1.96E-04 8.15E-04			
77 3.10 5.98E-08 0.	0.	0.	0.	4.59E-07 3.52E-06 3.70E-08 0.	0.	0.	0.	1.63E-05 3.57E-05 2.83E-04 2.06E-04 8.51E-04			
78 3.00 6.08E-08 0.	0.	0.	0.	2.67E-07 1.06E-05 3.36E-08 0.	0.	0.	0.	1.63E-05 3.94E-05 3.02E-04 2.16E-04 8.87E-04			
79 2.90 6.18E-08 0.	0.	0.	0.	1.61E-07 8.42E-06 2.41E-08 0.	0.	0.	0.	1.65E-05 4.36E-05 3.23E-04 2.26E-04 9.24E-04			
80 2.80 6.28E-08 0.	0.	0.	0.	7.40E-08 3.00E-06 1.59E-08 0.	0.	0.	0.	1.64E-05 4.85E-05 3.46E-04 2.36E-04 9.62E-04			
81 2.70 6.38E-08 0.	0.	0.	0.	3.94E-08 5.13E-06 7.85E-09 0.	0.	0.	0.	1.64E-05 5.42E-05 3.69E-04 2.46E-04 1.00E-03			
82 2.60 6.48E-08 0.	0.	0.	0.	1.70E-08 4.82E-07 3.24E-09 0.	0.	0.	0.	1.64E-05 6.07E-05 3.93E-04 2.56E-04 1.04E-03			
83 2.50 6.58E-08 0.	0.	0.	0.	2.11E-09 4.16E-07 7.39E-10 0.	0.	0.	0.	1.64E-05 6.84E-05 4.18E-04 2.66E-04 1.08E-03			
84 2.40 0.	0.	0.	0.	4.07E-07 7.62E-11 0.	0.	0.	0.	1.64E-05 7.74E-05 4.43E-04 2.76E-04 1.12E-03			
85 2.30 0.	0.	0.	0.	0.	0.	0.	0.	1.64E-05 8.80E-05 4.68E-04 2.86E-04 1.16E-03			
86 2.20 0.	0.	0.	0.	0.	0.	0.	0.	1.64E-05 1.01E-04 4.93E-04 2.96E-04 1.20E-03			
87 2.10 0.	0.	0.	0.	0.	0.	0.	0.	1.63E-05 1.14E-04 5.18E-04 3.06E-04 1.24E-03			
88 2.00 0.	0.	0.	0.	0.	0.	0.	0.	1.62E-05 1.28E-04 5.43E-04 3.16E-04 1.28E-03			
89 1.90 0.	0.	0.	0.	0.	0.	0.	0.	1.62E-05 1.44E-04 5.67E-04 3.26E-04 1.32E-03			
90 1.80 0.	0.	0.	0.	0.	0.	0.	0.	1.52E-05 1.57E-04 5.92E-04 3.36E-04 1.36E-03			
91 1.70 0.	0.	0.	0.	0.	0.	0.	0.	1.45E-05 1.65E-04 6.17E-04 3.46E-04 1.40E-03			
92 1.60 0.	0.	0.	0.	0.	0.	0.	0.	1.37E-05 2.20E-04 8.01E-04 4.01E-04 1.48E-03			
93 1.50 0.	0.	0.	0.	0.	0.	0.	0.	1.16E-05 2.65E-04 9.28E-04 4.56E-04 1.56E-03			
94 1.40 0.	0.	0.	0.	0.	0.	0.	0.	9.26E-06 3.22E-04 1.17E-03 5.11E-04 1.64E-03			
95 1.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
96 1.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
97 1.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
98 1.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
99 0.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
100 0.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
101 0.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
102 0.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		12000.		DENSITY (GM/CC) 1.2932-06		(10.0E-04 NORMAL)		O- FREE-JFREE		M		P.E.		TOTAL AIC	
PHOTON Q2 S-R		D2 S-R		NO		NO		2		PHOTO-DET (1000S)		P.E.		P.E.	
ENERGY BANDS		NO. 1		META		GAMMA									
E.V.															
1	10.70	0.	1.90E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2	10.60	0.	1.74E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3	10.50	0.	1.72E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4	10.40	0.	1.50E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5	10.30	0.	1.31E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6	10.20	0.	1.34E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7	10.10	0.	1.24E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8	10.00	0.	1.04E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9	9.90	0.	1.05E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10	9.80	0.	9.57E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	9.70	0.	7.92E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12	9.60	0.	6.51E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13	9.50	0.	6.93E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14	9.40	0.	6.35E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15	9.30	0.	6.44E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16	9.20	0.	5.08E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17	9.10	0.	5.15E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18	9.00	0.	4.51E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19	8.90	0.	4.02E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20	8.80	0.	3.80E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	8.70	0.	3.21E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22	8.60	0.	3.27E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23	8.50	0.	2.73E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24	8.40	0.	2.67E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25	8.30	0.	2.16E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26	8.20	0.	2.15E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27	8.10	0.	1.76E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28	8.00	0.	1.76E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29	7.90	0.	1.47E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30	7.80	0.	1.24E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	7.70	0.	1.24E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32	7.60	0.	1.10E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33	7.50	0.	1.02E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34	7.40	0.	8.69E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35	7.30	0.	8.13E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36	7.20	0.	7.11E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37	7.10	0.	6.43E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38	7.00	0.	5.57E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39	6.90	0.	5.21E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40	6.80	0.	4.84E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	6.70	0.	4.08E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42	6.60	0.	3.53E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43	6.50	0.	2.68E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44	6.40	0.	1.74E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45	6.30	0.	1.01E-09	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46	6.20	0.	9.26E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47	6.10	0.	2.24E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48	6.00	0.	5.97E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49	5.90	0.	9.64E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50	5.80	0.	1.52E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	5.70	0.	1.64E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R ENERGY BANDS		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-06 (10.0E-94 NORMAL)		O- PHOTO-DET (10NS)		FREE-FREE N		O P.E.		TOTAL AIR P.E.	
N2 1ST POS.	N2 2ND POS.	N2 1ST NEG.	N2 2ND NEG.	BETA	GAMMA	NO VIB-ROT	NO VIB-ROT	NO 2	NO 2	NO 2	NO 2	NO 2	NO 2	NO 2	NO 2
52	5.60 2.31E-10	0.	0.	5.44E-10	3.43E-09	0.	0.	0.	0.00E-07	4.54E-07	0.55E-06	4.21E-06	1.59E-05	0.	0.
53	5.30 2.43E-10	0.	0.	6.05E-10	3.12E-09	0.	0.	0.	6.05E-07	4.75E-07	0.70E-06	4.30E-06	1.62E-05	0.	0.
54	5.40 2.58E-10	0.	0.	5.83E-10	2.90E-09	0.	0.	0.	6.97E-07	5.07E-07	0.80E-06	4.40E-06	1.65E-05	0.	0.
55	5.30 2.52E-10	0.	0.	6.30E-10	3.22E-09	0.	0.	0.	7.06E-07	5.36E-07	0.86E-06	4.51E-06	1.68E-05	0.	0.
56	5.20 1.65E-10	0.	0.	6.30E-10	3.22E-09	0.	0.	0.	7.06E-07	5.36E-07	0.86E-06	4.51E-06	1.72E-05	0.	0.
57	5.10 1.74E-10	0.	0.	6.30E-10	3.22E-09	0.	0.	0.	7.12E-07	5.42E-07	0.87E-06	4.56E-06	1.76E-05	0.	0.
58	5.00 1.30E-10	0.	0.	5.94E-10	2.95E-09	0.	0.	0.	7.12E-07	5.42E-07	0.87E-06	4.56E-06	1.81E-05	0.	0.
59	4.90 1.09E-10	0.	0.	6.04E-10	2.78E-09	0.	0.	0.	7.28E-07	5.75E-07	0.91E-06	4.63E-06	1.85E-05	0.	0.
60	4.80 1.09E-10	0.	0.	6.12E-10	2.78E-09	0.	0.	0.	7.28E-07	5.75E-07	0.91E-06	4.63E-06	1.88E-05	0.	0.
61	4.70 1.19E-10	0.	0.	6.22E-10	2.93E-09	0.	0.	0.	7.38E-07	5.91E-07	0.94E-06	4.70E-06	1.90E-05	0.	0.
62	4.60 1.41E-10	0.	0.	6.27E-10	2.59E-09	0.	0.	0.	7.42E-07	6.02E-07	0.96E-06	4.74E-06	1.92E-05	0.	0.
63	4.50 1.44E-10	0.	0.	5.95E-10	1.30E-09	0.	0.	0.	7.42E-07	6.02E-07	0.96E-06	4.74E-06	2.00E-05	0.	0.
64	4.40 1.48E-10	0.	0.	5.40E-10	1.07E-09	0.	0.	0.	7.52E-07	6.40E-07	1.02E-06	4.86E-06	2.16E-05	0.	0.
65	4.30 1.34E-10	0.	0.	5.04E-10	4.30E-10	0.	0.	0.	7.52E-07	6.40E-07	1.02E-06	4.86E-06	2.24E-05	0.	0.
66	4.20 1.24E-10	0.	0.	5.28E-10	4.01E-10	0.	0.	0.	7.62E-07	6.80E-07	1.08E-06	4.98E-06	2.31E-05	0.	0.
67	4.10 1.13E-10	0.	0.	4.90E-10	1.82E-10	0.	0.	0.	7.62E-07	6.80E-07	1.08E-06	4.98E-06	2.34E-05	0.	0.
68	4.00 1.02E-10	0.	0.	4.70E-10	9.76E-11	0.	0.	0.	7.72E-07	7.12E-07	1.12E-06	5.06E-06	2.42E-05	0.	0.
69	3.90 8.35E-11	0.	0.	6.23E-09	1.40E-08	0.	0.	0.	7.72E-07	7.12E-07	1.12E-06	5.06E-06	2.42E-05	0.	0.
70	3.80 9.01E-11	0.	0.	9.36E-09	1.02E-07	4.11E-10	0.	0.	7.82E-07	7.52E-07	1.16E-06	5.14E-06	2.49E-05	0.	0.
71	3.70 7.65E-11	0.	0.	1.14E-08	3.00E-08	3.95E-10	0.	0.	7.82E-07	7.52E-07	1.16E-06	5.14E-06	2.49E-05	0.	0.
72	3.60 6.73E-11	0.	0.	4.53E-09	1.02E-07	3.95E-10	0.	0.	7.92E-07	7.92E-07	1.20E-06	5.22E-06	2.57E-05	0.	0.
73	3.50 6.10E-11	0.	0.	9.44E-09	4.51E-07	2.97E-10	0.	0.	8.02E-07	8.32E-07	1.24E-06	5.30E-06	2.64E-05	0.	0.
74	3.40 5.38E-11	0.	0.	5.23E-09	4.58E-08	3.19E-10	0.	0.	8.02E-07	8.32E-07	1.24E-06	5.30E-06	2.64E-05	0.	0.
75	3.30 4.22E-11	0.	0.	5.51E-09	2.20E-07	2.93E-10	0.	0.	8.12E-07	8.72E-07	1.28E-06	5.38E-06	2.72E-05	0.	0.
76	3.20 3.55E-11	0.	0.	3.34E-09	4.72E-07	2.90E-10	0.	0.	8.12E-07	8.72E-07	1.28E-06	5.38E-06	2.72E-05	0.	0.
77	3.10 3.29E-11	0.	0.	2.56E-09	7.15E-09	2.90E-10	0.	0.	8.22E-07	9.12E-07	1.32E-06	5.46E-06	2.80E-05	0.	0.
78	3.00 2.84E-11	0.	0.	1.50E-09	2.14E-07	2.97E-10	0.	0.	8.22E-07	9.12E-07	1.32E-06	5.46E-06	2.80E-05	0.	0.
79	2.90 2.30E-11	0.	0.	9.05E-10	1.31E-07	1.90E-10	0.	0.	8.32E-07	9.52E-07	1.36E-06	5.54E-06	2.88E-05	0.	0.
80	2.80 2.33E-11	0.	0.	4.31E-10	6.12E-08	0.94E-11	0.	0.	8.32E-07	9.52E-07	1.36E-06	5.54E-06	2.88E-05	0.	0.
81	2.70 1.42E-11	0.	0.	1.90E-10	1.04E-07	0.95E-11	0.	0.	8.42E-07	9.92E-07	1.40E-06	5.62E-06	2.96E-05	0.	0.
82	2.60 6.23E-12	0.	0.	10.00E-11	9.83E-09	2.00E-11	0.	0.	8.42E-07	9.92E-07	1.40E-06	5.62E-06	2.96E-05	0.	0.
83	2.50 4.25E-12	0.	0.	1.18E-11	8.40E-09	4.56E-12	0.	0.	8.52E-07	1.03E-06	1.44E-06	5.70E-06	3.04E-05	0.	0.
84	2.40 0.	0.	0.	6.29E-10	4.71E-13	0.	0.	0.	8.52E-07	1.03E-06	1.44E-06	5.70E-06	3.04E-05	0.	0.
85	2.30 0.	0.	0.	2.38E-09	0.	0.	0.	0.	8.62E-07	1.07E-06	1.48E-06	5.78E-06	3.12E-05	0.	0.
86	2.20 0.	0.	0.	5.54E-09	0.	0.	0.	0.	8.62E-07	1.07E-06	1.48E-06	5.78E-06	3.12E-05	0.	0.
87	2.10 0.	0.	0.	6.83E-09	0.	0.	0.	0.	8.72E-07	1.11E-06	1.52E-06	5.86E-06	3.20E-05	0.	0.
88	2.00 0.	0.	0.	1.22E-08	0.	0.	0.	0.	8.72E-07	1.11E-06	1.52E-06	5.86E-06	3.20E-05	0.	0.
89	1.90 0.	0.	0.	1.97E-08	0.	0.	0.	0.	8.82E-07	1.15E-06	1.56E-06	5.94E-06	3.28E-05	0.	0.
90	1.80 0.	0.	0.	1.61E-08	0.	0.	0.	0.	8.82E-07	1.15E-06	1.56E-06	5.94E-06	3.28E-05	0.	0.
91	1.70 0.	0.	0.	1.92E-08	0.	0.	0.	0.	8.92E-07	1.19E-06	1.60E-06	6.02E-06	3.36E-05	0.	0.
92	1.60 0.	0.	0.	1.37E-08	0.	0.	0.	0.	8.92E-07	1.19E-06	1.60E-06	6.02E-06	3.36E-05	0.	0.
93	1.50 0.	0.	0.	1.65E-08	0.	0.	0.	0.	9.02E-07	1.23E-06	1.64E-06	6.10E-06	3.44E-05	0.	0.
94	1.40 0.	0.	0.	1.69E-08	0.	0.	0.	0.	9.02E-07	1.23E-06	1.64E-06	6.10E-06	3.44E-05	0.	0.
95	1.30 0.	0.	0.	1.25E-08	0.	0.	0.	0.	9.12E-07	1.27E-06	1.68E-06	6.18E-06	3.52E-05	0.	0.
96	1.20 0.	0.	0.	1.25E-08	0.	0.	0.	0.	9.12E-07	1.27E-06	1.68E-06	6.18E-06	3.52E-05	0.	0.
97	1.10 0.	0.	0.	1.10E-08	0.	0.	0.	0.	9.22E-07	1.31E-06	1.72E-06	6.26E-06	3.60E-05	0.	0.
98	1.00 0.	0.	0.	1.01E-08	0.	0.	0.	0.	9.22E-07	1.31E-06	1.72E-06	6.26E-06	3.60E-05	0.	0.
99	0.90 0.	0.	0.	8.29E-09	0.	0.	0.	0.	9.32E-07	1.35E-06	1.76E-06	6.34E-06	3.68E-05	0.	0.
100	0.80 0.	0.	0.	3.89E-09	0.	0.	0.	0.	9.32E-07	1.35E-06	1.76E-06	6.34E-06	3.68E-05	0.	0.
101	0.70 0.	0.	0.	9.78E-10	0.	0.	0.	0.	9.42E-07	1.39E-06	1.80E-06	6.42E-06	3.76E-05	0.	0.
102	0.60 0.	0.	0.	9.90E-11	0.	0.	0.	0.	9.42E-07	1.39E-06	1.80E-06	6.42E-06	3.76E-05	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 12000.				DENSITY (GM/CC) 1.293E-07 (10.0E-05 NORMAL)							
PHOTON ENERGY E.V.	O2 S-R BANDS	O2 S-R CONT.	M2 S-M NO. 1	NO BETA	AD GAMMA	NO 2	O- PHOTO-DET (ICM)	M FREE-FREC P.E.	G P.E.	TOTAL AIR	
1 10.70 0.			3.79E-10	0.	0.	0.	7.23E-09	2.91E-09	1.07E-06	2.74E-07	1.30E-06
2 10.60 0.			3.33E-10	0.	0.	0.	7.24E-09	3.00E-09	1.08E-06	2.75E-07	1.30E-06
3 10.50 0.			3.30E-10	0.	0.	0.	7.29E-09	3.00E-09	1.08E-06	2.75E-07	1.37E-06
4 10.40 0.			3.03E-10	0.	0.	0.	7.26E-09	3.17E-09	1.09E-06	2.72E-07	1.37E-06
5 10.30 0.			2.59E-10	0.	0.	0.	7.27E-09	3.27E-09	1.09E-06	2.72E-07	1.37E-06
6 10.20 0.			2.57E-10	0.	0.	0.	7.28E-09	3.27E-09	1.09E-06	2.71E-07	1.37E-06
7 10.10 0.			2.37E-10	0.	0.	0.	7.39E-09	3.47E-09	1.09E-06	2.71E-07	1.38E-06
8 10.00 0.			1.98E-10	0.	0.	0.	7.30E-09	3.57E-09	1.10E-06	2.70E-07	1.30E-06
9 9.90 0.			2.02E-10	0.	0.	0.	7.31E-09	3.60E-09	1.10E-06	2.70E-07	1.30E-06
10 9.80 0.			1.83E-10	0.	0.	0.	7.32E-09	3.60E-09	1.10E-06	2.69E-07	1.30E-06
11 9.70 0.			1.52E-10	0.	0.	0.	7.34E-09	3.62E-09	1.10E-06	2.69E-07	1.30E-06
12 9.60 0.			1.63E-10	0.	0.	0.	7.35E-09	3.62E-09	1.11E-06	2.68E-07	1.30E-06
13 9.50 0.			1.33E-10	0.	0.	0.	7.36E-09	3.62E-09	1.11E-06	2.67E-07	1.30E-06
14 9.40 0.			1.22E-10	0.	0.	0.	7.36E-09	3.62E-09	1.11E-06	2.67E-07	1.30E-06
15 9.30 0.			1.23E-10	0.	0.	0.	7.42E-09	3.62E-09	1.11E-06	2.66E-07	1.30E-06
16 9.20 0.			9.64E-11	0.	0.	0.	7.44E-09	3.62E-09	1.11E-06	2.66E-07	1.30E-06
17 9.10 0.			9.64E-11	0.	0.	0.	7.47E-09	3.62E-09	1.11E-06	2.65E-07	1.30E-06
18 9.00 0.			6.64E-11	0.	0.	0.	7.50E-09	3.62E-09	1.11E-06	2.65E-07	1.30E-06
19 8.90 0.			7.70E-11	0.	0.	0.	7.52E-09	3.62E-09	1.11E-06	2.64E-07	1.30E-06
20 8.80 0.			7.44E-11	0.	0.	0.	7.55E-09	3.62E-09	1.11E-06	2.64E-07	1.30E-06
21 8.70 0.			6.13E-11	0.	0.	0.	7.50E-09	3.62E-09	1.11E-06	2.63E-07	1.30E-06
22 8.60 0.			6.27E-11	0.	0.	0.	7.60E-09	3.62E-09	1.11E-06	2.63E-07	1.30E-06
23 8.50 0.			5.24E-11	0.	0.	0.	7.62E-09	3.62E-09	1.11E-06	2.62E-07	1.30E-06
24 8.40 0.			5.12E-11	0.	0.	0.	7.42E-09	3.62E-09	1.11E-06	2.62E-07	1.30E-06
25 8.30 0.			4.15E-11	0.	0.	0.	7.71E-09	3.62E-09	1.11E-06	2.62E-07	1.30E-06
26 8.20 0.			4.12E-11	0.	0.	0.	7.79E-09	3.62E-09	1.11E-06	2.62E-07	1.30E-06
27 8.10 0.			3.41E-11	0.	0.	0.	7.79E-09	3.62E-09	1.11E-06	2.62E-07	1.30E-06
28 8.00 0.			3.34E-11	0.	0.	0.	7.82E-09	3.62E-09	1.11E-06	2.62E-07	1.30E-06
29 7.90 0.			2.77E-11	0.	0.	0.	7.82E-09	3.62E-09	1.11E-06	2.62E-07	1.30E-06
30 7.80 0.			2.62E-11	0.	0.	0.	7.91E-09	3.62E-09	1.11E-06	2.70E-07	1.30E-06
31 7.70 0.			2.37E-11	0.	0.	0.	7.95E-09	3.62E-09	1.11E-06	2.70E-07	1.30E-06
32 7.60 0.			2.9E-11	0.	0.	0.	7.99E-09	3.62E-09	1.11E-06	2.71E-07	1.30E-06
33 7.50 0.			1.95E-11	0.	0.	0.	8.05E-09	3.62E-09	1.11E-06	2.75E-07	1.30E-06
34 7.40 0.			1.70E-11	0.	0.	0.	8.05E-09	3.62E-09	1.11E-06	2.77E-07	1.30E-06
35 7.30 0.			1.58E-11	0.	0.	0.	8.12E-09	3.62E-09	1.11E-06	2.70E-07	1.30E-06
36 7.20 0.			1.36E-11	0.	0.	0.	8.12E-09	3.62E-09	1.11E-06	2.70E-07	1.30E-06
37 7.10 0.			1.27E-11	0.	0.	0.	8.23E-09	3.62E-09	1.11E-06	2.70E-07	1.30E-06
38 7.00 0.			1.12E-11	0.	0.	0.	8.30E-09	3.62E-09	1.11E-06	2.75E-07	1.30E-06
39 6.90 0.			9.98E-12	0.	0.	0.	8.37E-09	3.62E-09	1.11E-06	2.80E-07	1.30E-06
40 6.80 0.			9.26E-12	0.	0.	0.	8.43E-09	3.62E-09	1.11E-06	2.80E-07	1.30E-06
41 6.70 0.			7.62E-12	0.	0.	0.	8.50E-09	3.62E-09	1.11E-06	2.80E-07	1.30E-06
42 6.60 0.			6.76E-12	0.	0.	0.	8.57E-09	3.62E-09	1.11E-06	2.90E-07	1.30E-06
43 6.50 0.			5.14E-12	0.	0.	0.	8.63E-09	3.62E-09	1.11E-06	2.90E-07	1.30E-06
44 6.40 0.			3.34E-12	0.	0.	0.	8.70E-09	3.62E-09	1.11E-06	2.94E-07	1.30E-06
45 6.30 0.			1.94E-12	0.	0.	0.	8.77E-09	3.62E-09	1.11E-06	2.97E-07	1.30E-06
46 6.20 0.			1.01E-12	0.	0.	0.	8.83E-09	3.62E-09	1.11E-06	3.01E-07	1.30E-06
47 6.10 0.			4.48E-13	0.	0.	0.	8.90E-09	3.62E-09	1.11E-06	3.06E-07	1.30E-06
48 6.00 0.			3.10E-13	0.	0.	0.	8.97E-09	3.62E-09	1.11E-06	3.10E-07	1.30E-06
49 5.90 0.			7.82E-13	0.	0.	0.	9.04E-09	3.62E-09	1.11E-06	3.15E-07	1.30E-06
50 5.80 0.			1.94E-14	0.	0.	0.	9.32E-09	3.62E-09	1.11E-06	3.15E-07	1.30E-06
51 5.70 0.			5.10E-13	0.	0.	0.	9.38E-09	3.62E-09	1.11E-06	3.23E-07	1.30E-06

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON Q2 S-R ENERGY BANDS		N2 1ST POS.	N2 2ND POS.	N2 1ST NEG.	N2 2ND NEG.	NO BETA	AO GAMMA	NO VIB-ROT	NO 2	0- PHOTO-DET (IONS)	N P.E.	0 P.E.	TOTAL AIR
52	5.50 6.41E-13	0.	0.	0.	0.	1.29E-12	0.36E-12	0.	0.	7.72E-09	2.05E-08	3.74E-07	3.27E-07
53	5.50 6.75E-13	0.	0.	0.	0.	1.53E-12	7.86E-12	0.	0.	7.76E-09	2.16E-08	3.81E-07	3.32E-07
54	5.50 7.11E-13	0.	0.	0.	0.	1.34E-12	5.75E-12	0.	0.	7.00E-09	2.39E-08	3.08E-07	3.37E-07
55	5.50 7.60E-13	0.	0.	0.	0.	1.38E-12	7.87E-12	0.	0.	7.85E-09	2.42E-08	3.43E-07	3.71E-07
56	5.50 8.15E-13	0.	0.	0.	0.	1.45E-12	5.12E-12	0.	0.	7.90E-09	2.54E-08	4.05E-07	3.58E-07
57	5.50 8.65E-13	0.	0.	0.	0.	1.43E-12	6.61E-12	0.	0.	7.94E-09	2.72E-08	4.16E-07	3.58E-07
58	5.50 9.05E-13	0.	0.	0.	0.	1.28E-12	6.08E-12	0.	0.	8.03E-09	2.90E-08	4.18E-07	3.58E-07
59	4.50 3.08E-13	0.	0.	0.	0.	1.59E-12	6.32E-12	0.	0.	8.10E-09	3.07E-08	4.1E-07	3.72E-07
60	4.50 3.08E-13	0.	0.	0.	0.	1.48E-12	5.85E-12	0.	0.	8.17E-09	3.26E-08	4.47E-07	3.80E-07
61	4.50 3.29E-13	0.	0.	0.	0.	1.43E-12	5.14E-12	0.	0.	8.23E-09	3.40E-08	4.7E-07	3.90E-07
62	4.50 3.69E-13	0.	0.	0.	0.	1.45E-12	4.73E-12	0.	0.	8.30E-09	3.71E-08	4.84E-07	4.08E-07
63	4.50 3.99E-13	0.	0.	0.	0.	1.28E-12	3.47E-12	0.	0.	8.37E-09	3.97E-08	5.04E-07	4.09E-07
64	4.50 4.17E-13	0.	0.	0.	0.	1.85E-12	2.47E-12	0.	0.	8.43E-09	4.25E-08	5.24E-07	4.19E-07
65	4.50 4.77E-13	0.	0.	0.	0.	1.17E-12	1.47E-12	0.	0.	8.50E-09	4.55E-08	5.46E-07	4.26E-07
66	4.50 3.44E-13	0.	0.	0.	0.	1.22E-12	1.11E-12	0.	0.	8.57E-09	4.86E-08	5.68E-07	4.07E-07
67	4.50 3.14E-13	0.	0.	0.	0.	1.19E-12	2.94E-13	0.	0.	8.60E-09	5.25E-08	5.98E-07	1.85E-07
68	4.00 2.03E-13	0.	0.	0.	0.	1.08E-12	2.25E-13	0.	0.	8.63E-09	5.66E-08	5.21E-07	1.88E-07
69	3.50 2.32E-13	0.	0.	0.	0.	1.19E-11	9.57E-13	0.	0.	8.60E-09	6.11E-08	4.08E-07	1.12E-07
70	3.50 2.50E-13	0.	0.	0.	0.	1.79E-11	1.02E-12	0.	0.	8.57E-09	6.50E-08	4.23E-07	1.16E-07
71	3.70 2.12E-13	0.	0.	0.	0.	2.11E-11	2.70E-10	0.	0.	8.43E-09	7.16E-08	3.95E-07	1.26E-07
72	3.50 1.87E-13	0.	0.	0.	0.	1.26E-11	1.64E-09	0.	0.	7.90E-09	7.76E-08	4.32E-07	1.43E-07
73	3.50 1.49E-13	0.	0.	0.	0.	1.84E-11	4.16E-09	0.	0.	7.73E-09	8.77E-08	4.83E-07	1.59E-07
74	3.50 1.49E-13	0.	0.	0.	0.	1.08E-11	4.13E-10	0.	0.	4.17E-09	9.24E-08	5.43E-07	1.77E-07
75	3.30 1.17E-13	0.	0.	0.	0.	1.08E-11	1.96E-09	0.	0.	4.18E-09	1.01E-07	6.03E-07	1.95E-07
76	3.20 9.84E-14	0.	0.	0.	0.	6.39E-12	4.25E-09	0.	0.	4.18E-09	1.11E-07	6.44E-07	2.14E-07
77	3.10 9.15E-14	0.	0.	0.	0.	4.89E-12	6.44E-10	0.	0.	4.19E-09	1.22E-07	7.24E-07	2.33E-07
78	3.00 7.85E-14	0.	0.	0.	0.	2.87E-12	1.94E-09	0.	0.	4.20E-09	1.35E-07	7.88E-07	2.52E-07
79	2.50 6.38E-14	0.	0.	0.	0.	1.73E-12	1.16E-09	0.	0.	4.21E-09	1.50E-07	8.52E-07	2.71E-07
80	2.50 6.42E-14	0.	0.	0.	0.	8.24E-13	5.51E-10	0.	0.	4.22E-09	1.66E-07	9.24E-07	2.92E-07
81	2.70 3.94E-14	0.	0.	0.	0.	3.84E-13	9.40E-10	0.	0.	4.22E-09	1.86E-07	1.00E-06	2.92E-07
82	2.50 1.73E-14	0.	0.	0.	0.	1.92E-13	8.85E-11	0.	0.	4.22E-09	2.08E-07	1.08E-06	1.34E-07
83	2.50 1.16E-15	0.	0.	0.	0.	2.27E-14	7.64E-11	0.	0.	4.22E-09	2.34E-07	6.95E-07	1.55E-07
84	2.00 0.	0.	0.	0.	0.	7.47E-11	1.09E-13	0.	0.	4.22E-09	2.61E-07	8.00E-07	1.90E-07
85	2.00 0.	0.	0.	0.	0.	4.58E-12	0.	0.	0.	4.18E-09	3.02E-07	1.84E-06	2.58E-07
86	2.00 0.	0.	0.	0.	0.	1.08E-11	0.	0.	0.	4.17E-09	3.45E-07	1.23E-06	2.74E-07
87	2.10 0.	0.	0.	0.	0.	1.31E-11	0.	0.	0.	4.15E-09	3.98E-07	1.44E-06	3.21E-07
88	2.00 0.	0.	0.	0.	0.	2.34E-11	0.	0.	0.	4.02E-09	4.61E-07	1.44E-06	3.68E-07
89	1.76 0.	0.	0.	0.	0.	3.77E-11	0.	0.	0.	3.86E-09	5.39E-07	1.86E-06	4.19E-07
90	1.60 0.	0.	0.	0.	0.	3.09E-11	0.	0.	0.	3.40E-09	6.35E-07	2.20E-06	5.02E-07
91	1.70 0.	0.	0.	0.	0.	3.68E-11	0.	0.	0.	3.40E-09	7.56E-07	2.62E-06	6.06E-07
92	1.60 0.	0.	0.	0.	0.	2.63E-11	0.	0.	0.	2.94E-09	9.09E-07	3.05E-06	6.78E-07
93	1.50 0.	0.	0.	0.	0.	3.17E-11	0.	0.	0.	1.34E-09	1.10E-06	3.58E-06	6.17E-07
94	1.40 0.	0.	0.	0.	0.	3.24E-11	0.	0.	0.	0.	1.36E-06	2.99E-06	6.55E-07
95	1.30 0.	0.	0.	0.	0.	2.45E-11	0.	0.	0.	0.	1.71E-06	4.42E-06	9.49E-07
96	1.20 0.	0.	0.	0.	0.	2.39E-11	0.	0.	0.	0.	2.18E-06	5.62E-06	1.28E-06
97	1.10 0.	0.	0.	0.	0.	2.11E-11	0.	0.	0.	0.	2.64E-06	7.34E-06	1.75E-06
98	1.00 0.	0.	0.	0.	0.	1.94E-11	0.	0.	0.	0.	3.81E-06	1.11E-05	2.10E-06
99	0.90 0.	0.	0.	0.	0.	1.59E-11	0.	0.	0.	0.	5.97E-06	1.51E-05	2.80E-06
100	0.80 0.	0.	0.	0.	0.	7.45E-12	0.	0.	0.	0.	7.57E-06	1.13E-05	2.44E-06
101	0.70 0.	0.	0.	0.	0.	1.07E-12	0.	0.	0.	0.	1.24E-05	1.01E-05	1.95E-06
102	0.60 0.	0.	0.	0.	0.	1.90E-13	0.	0.	0.	0.	1.62E-05	1.14E-05	2.31E-06

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		12000.		DENSITY (GM/CC)		1.2032-00 (10.00-04 NORMAL)		0		0		0	
PHOTON 02 S-R		02 S-R		NO		AD		0		0		0	
ENERGY BANDS		CONT.		BETA		GAMMA		PHOTO-DET		FREE-FREE		P.E.	
E.V.		NO. 1		NO		NO		2		P.E.		TOTAL AIR	
1	10.70	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
2	10.60	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
3	10.50	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
4	10.40	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
5	10.30	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
6	10.20	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
7	10.10	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
8	10.00	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
9	9.90	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
10	9.80	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
11	9.70	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
12	9.60	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
13	9.50	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
14	9.40	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
15	9.30	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
16	9.20	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
17	9.10	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
18	9.00	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
19	8.90	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
20	8.80	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
21	8.70	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
22	8.60	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
23	8.50	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
24	8.40	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
25	8.30	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
26	8.20	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
27	8.10	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
28	8.00	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
29	7.90	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
30	7.80	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
31	7.70	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
32	7.60	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
33	7.50	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
34	7.40	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
35	7.30	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
36	7.20	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
37	7.10	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
38	7.00	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
39	6.90	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
40	6.80	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
41	6.70	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
42	6.60	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
43	6.50	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
44	6.40	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
45	6.30	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
46	6.20	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
47	6.10	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
48	6.00	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
49	5.90	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
50	5.80	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09
51	5.70	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-11	5.42E-11	1.94E-08	5.78E-09

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-08 (10.6E-06 NORMAL)		0- FREE-FREE		M		O TOTAL AIR	
ENERGY BANDS	W2	W1	W2	BETA	NO	NO	NO	PHOTO-DET	(IONS)	P.E.	P.E.	P.E.	P.E.
52 2.60 2.78E-16	0.	0.	0.	4.73E-16 3.15E-15	0.	0.	0.	2.19E-11 3.31E-10	6.78E-09 6.03E-09	1.48E-08	1.48E-08	1.48E-08	1.48E-08
53 2.78E-16 0.	0.	0.	0.	5.78E-16 2.97E-15	0.	0.	0.	2.21E-11 4.33E-10	6.09E-09 6.01E-09	1.47E-08	1.47E-08	1.47E-08	1.47E-08
54 2.97E-16 0.	0.	0.	0.	5.06E-16 2.17E-15	0.	0.	0.	2.21E-11 4.26E-10	7.03E-09 7.03E-09	1.45E-08	1.45E-08	1.45E-08	1.45E-08
55 3.03E-16 0.	0.	0.	0.	5.20E-16 2.97E-15	0.	0.	0.	2.23E-11 4.50E-10	7.10E-09 7.10E-09	1.45E-08	1.45E-08	1.45E-08	1.45E-08
56 3.03E-16 0.	0.	0.	0.	5.48E-16 2.97E-15	0.	0.	0.	2.23E-11 4.77E-10	7.10E-09 7.10E-09	1.45E-08	1.45E-08	1.45E-08	1.45E-08
57 3.10E-16 0.	0.	0.	0.	5.38E-16 2.57E-15	0.	0.	0.	2.24E-11 5.04E-10	7.44E-09 7.44E-09	1.55E-08	1.55E-08	1.55E-08	1.55E-08
58 3.10E-16 0.	0.	0.	0.	5.82E-16 2.29E-15	0.	0.	0.	2.28E-11 5.37E-10	7.73E-09 7.73E-09	1.55E-08	1.55E-08	1.55E-08	1.55E-08
59 3.10E-16 0.	0.	0.	0.	5.25E-16 2.39E-15	0.	0.	0.	2.38E-11 5.11E-10	7.98E-09 7.98E-09	1.68E-08	1.68E-08	1.68E-08	1.68E-08
60 3.10E-16 0.	0.	0.	0.	5.57E-16 2.21E-15	0.	0.	0.	2.38E-11 6.00E-10	8.22E-09 8.22E-09	1.68E-08	1.68E-08	1.68E-08	1.68E-08
61 3.10E-16 0.	0.	0.	0.	5.40E-16 1.94E-15	0.	0.	0.	2.34E-11 6.40E-10	8.40E-09 8.11E-09	1.72E-08	1.72E-08	1.72E-08	1.72E-08
62 3.10E-16 0.	0.	0.	0.	5.45E-16 1.78E-15	0.	0.	0.	2.36E-11 6.51E-10	8.76E-09 8.32E-09	1.78E-08	1.78E-08	1.78E-08	1.78E-08
63 3.10E-16 0.	0.	0.	0.	4.82E-16 1.31E-15	0.	0.	0.	2.37E-11 7.30E-10	9.13E-09 8.59E-09	1.84E-08	1.84E-08	1.84E-08	1.84E-08
64 3.10E-16 0.	0.	0.	0.	4.76E-16 9.33E-16	0.	0.	0.	2.38E-11 7.90E-10	9.50E-09 8.71E-09	1.90E-08	1.90E-08	1.90E-08	1.90E-08
65 3.10E-16 0.	0.	0.	0.	4.45E-16 5.54E-16	0.	0.	0.	2.41E-11 8.47E-10	9.80E-09 8.08E-09	1.96E-08	1.96E-08	1.96E-08	1.96E-08
66 3.10E-16 0.	0.	0.	0.	4.58E-16 4.11E-16	0.	0.	0.	2.43E-11 9.09E-10	1.03E-08 8.12E-09	1.96E-08	1.96E-08	1.96E-08	1.96E-08
67 3.10E-16 0.	0.	0.	0.	4.34E-16 1.11E-16	0.	0.	0.	2.44E-11 9.78E-10	1.08E-08 8.20E-09	2.19E-08	2.19E-08	2.19E-08	2.19E-08
68 3.10E-16 0.	0.	0.	0.	4.08E-16 8.40E-17	0.	0.	0.	2.45E-11 1.05E-09	1.14E-08 8.40E-09	2.20E-08	2.20E-08	2.20E-08	2.20E-08
69 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.14E-09	1.24E-08 8.76E-09	2.32E-08	2.32E-08	2.32E-08	2.32E-08
70 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.24E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
71 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
72 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
73 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
74 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
75 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
76 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
77 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
78 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
79 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
80 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
81 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
82 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
83 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
84 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
85 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
86 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
87 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
88 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
89 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
90 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
91 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
92 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
93 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
94 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
95 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
96 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
97 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
98 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
99 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
100 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
101 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08
102 3.10E-16 0.	0.	0.	0.	3.61E-16 3.47E-17	0.	0.	0.	2.46E-11 1.31E-09	1.31E-08 9.13E-09	2.41E-08	2.41E-08	2.41E-08	2.41E-08

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES M) 12000.		DENSITY (GM/CC) 1.293E-09 (19.0E-07 NORMAL)		NO		O- FREE-FREE		N		P.E.		TOTAL AIR	
PHOTON O2 S-R		O2 S-R		NO		NO		2		P.E.		P.E.	
ENERGY BANDS		CONT.		BETA		BARNA		PHOTON-DET (IONS)		P.E.		P.E.	
E.V.		NO. 1		NO		NO		NO		NO		NO	
1 10.70 0.	0.	1.92E-17	0.	0.	0.	0.	0.	0.	0.	2.47E-14	6.84E-13	2.15E-10	6.50E-11 2.01E-10
2 10.50 0.	0.	1.34E-17	0.	0.	0.	0.	0.	0.	0.	2.47E-14	6.21E-13	2.16E-10	6.49E-11 2.02E-10
3 10.30 0.	0.	1.32E-17	0.	0.	0.	0.	0.	0.	0.	2.48E-14	6.39E-13	2.17E-10	6.48E-11 2.02E-10
4 10.40 0.	0.	1.22E-17	0.	0.	0.	0.	0.	0.	0.	2.48E-14	6.30E-13	2.18E-10	6.46E-11 2.02E-10
5 10.50 0.	0.	1.02E-17	0.	0.	0.	0.	0.	0.	0.	2.48E-14	6.77E-13	2.18E-10	6.45E-11 2.04E-10
6 10.20 0.	0.	1.03E-17	0.	0.	0.	0.	0.	0.	0.	2.48E-14	6.90E-13	2.19E-10	6.44E-11 2.04E-10
7 10.10 0.	0.	9.90E-18	0.	0.	0.	0.	0.	0.	0.	2.49E-14	7.10E-13	2.19E-10	6.42E-11 2.04E-10
8 10.00 0.	0.	7.96E-18	0.	0.	0.	0.	0.	0.	0.	2.49E-14	7.41E-13	2.20E-10	6.41E-11 2.05E-10
9 9.90 0.	0.	8.09E-18	0.	0.	0.	0.	0.	0.	0.	2.50E-14	7.63E-13	2.21E-10	6.40E-11 2.05E-10
10 9.80 0.	0.	7.59E-18	0.	0.	0.	0.	0.	0.	0.	2.50E-14	7.87E-13	2.21E-10	6.39E-11 2.06E-10
11 9.70 0.	0.	6.88E-18	0.	0.	0.	0.	0.	0.	0.	2.51E-14	8.12E-13	2.22E-10	6.37E-11 2.06E-10
12 9.60 0.	0.	6.94E-18	0.	0.	0.	0.	0.	0.	0.	2.51E-14	8.38E-13	2.22E-10	6.36E-11 2.07E-10
13 9.50 0.	0.	5.34E-18	0.	0.	0.	0.	0.	0.	0.	2.51E-14	8.64E-13	2.23E-10	6.35E-11 2.07E-10
14 9.40 0.	0.	4.80E-18	0.	0.	0.	0.	0.	0.	0.	2.52E-14	8.93E-13	2.23E-10	6.34E-11 2.07E-10
15 9.30 0.	0.	4.93E-18	0.	0.	0.	0.	0.	0.	0.	2.53E-14	9.22E-13	2.23E-10	6.33E-11 2.07E-10
16 9.20 0.	0.	3.87E-18	0.	0.	0.	0.	0.	0.	0.	2.54E-14	9.52E-13	2.23E-10	6.32E-11 2.07E-10
17 9.10 0.	0.	3.96E-18	0.	0.	0.	0.	0.	0.	0.	2.55E-14	9.84E-13	2.23E-10	6.31E-11 2.07E-10
18 9.00 0.	0.	3.77E-18	0.	0.	0.	0.	0.	0.	0.	2.56E-14	1.02E-12	2.23E-10	6.30E-11 2.07E-10
19 8.90 0.	0.	3.09E-18	0.	0.	0.	0.	0.	0.	0.	2.57E-14	1.05E-12	2.23E-10	6.29E-11 2.07E-10
20 8.80 0.	0.	2.99E-18	0.	0.	0.	0.	0.	0.	0.	2.58E-14	1.09E-12	2.23E-10	6.28E-11 2.07E-10
21 8.70 0.	0.	2.47E-18	0.	0.	0.	0.	0.	0.	0.	2.59E-14	1.13E-12	2.23E-10	6.27E-11 2.07E-10
22 8.60 0.	0.	2.52E-18	0.	0.	0.	0.	0.	0.	0.	2.60E-14	1.17E-12	2.23E-10	6.26E-11 2.07E-10
23 8.50 0.	0.	2.10E-18	0.	0.	0.	0.	0.	0.	0.	2.61E-14	1.21E-12	2.23E-10	6.25E-11 2.07E-10
24 8.40 0.	0.	2.05E-18	0.	0.	0.	0.	0.	0.	0.	2.62E-14	1.25E-12	2.23E-10	6.24E-11 2.07E-10
25 8.30 0.	0.	1.66E-18	0.	0.	0.	0.	0.	0.	0.	2.63E-14	1.30E-12	2.23E-10	6.23E-11 2.07E-10
26 8.20 0.	0.	1.65E-18	0.	0.	0.	0.	0.	0.	0.	2.64E-14	1.35E-12	2.23E-10	6.22E-11 2.07E-10
27 8.10 0.	0.	1.37E-18	0.	0.	0.	0.	0.	0.	0.	2.65E-14	1.40E-12	2.23E-10	6.21E-11 2.07E-10
28 8.00 0.	0.	1.35E-18	0.	0.	0.	0.	0.	0.	0.	2.66E-14	1.45E-12	2.23E-10	6.20E-11 2.07E-10
29 7.90 0.	0.	1.13E-18	0.	0.	0.	0.	0.	0.	0.	2.67E-14	1.51E-12	2.23E-10	6.19E-11 2.07E-10
30 7.80 0.	0.	1.13E-18	0.	0.	0.	0.	0.	0.	0.	2.68E-14	1.57E-12	2.23E-10	6.18E-11 2.07E-10
31 7.70 0.	0.	9.52E-19	0.	0.	0.	0.	0.	0.	0.	2.69E-14	1.63E-12	2.23E-10	6.17E-11 2.07E-10
32 7.60 0.	0.	8.79E-19	0.	0.	0.	0.	0.	0.	0.	2.70E-14	1.69E-12	2.23E-10	6.16E-11 2.07E-10
33 7.50 0.	0.	7.84E-19	0.	0.	0.	0.	0.	0.	0.	2.71E-14	1.76E-12	2.23E-10	6.15E-11 2.07E-10
34 7.40 0.	0.	6.83E-19	0.	0.	0.	0.	0.	0.	0.	2.72E-14	1.83E-12	2.23E-10	6.14E-11 2.07E-10
35 7.30 0.	0.	6.27E-19	0.	0.	0.	0.	0.	0.	0.	2.73E-14	1.91E-12	2.23E-10	6.13E-11 2.07E-10
36 7.20 0.	0.	5.47E-19	0.	0.	0.	0.	0.	0.	0.	2.74E-14	1.99E-12	2.23E-10	6.12E-11 2.07E-10
37 7.10 0.	0.	5.09E-19	0.	0.	0.	0.	0.	0.	0.	2.75E-14	2.08E-12	2.23E-10	6.11E-11 2.07E-10
38 7.00 2.63E-22	0.	4.91E-19	0.	0.	0.	0.	0.	0.	0.	2.76E-14	2.17E-12	2.23E-10	6.10E-11 2.07E-10
39 6.90 5.08E-22	0.	4.04E-19	0.	0.	0.	0.	0.	0.	0.	2.77E-14	2.26E-12	2.23E-10	6.09E-11 2.07E-10
40 6.80 4.22E-22	0.	3.72E-19	0.	0.	0.	0.	0.	0.	0.	2.78E-14	2.36E-12	2.23E-10	6.08E-11 2.07E-10
41 6.70 3.00E-22	0.	3.14E-19	0.	0.	0.	0.	0.	0.	0.	2.79E-14	2.47E-12	2.23E-10	6.07E-11 2.07E-10
42 6.60 1.79E-22	0.	2.71E-19	0.	0.	0.	0.	0.	0.	0.	2.80E-14	2.59E-12	2.23E-10	6.06E-11 2.07E-10
43 6.50 1.01E-22	0.	2.06E-19	0.	0.	0.	0.	0.	0.	0.	2.81E-14	2.71E-12	2.23E-10	6.05E-11 2.07E-10
44 6.40 1.37E-22	0.	1.34E-19	0.	0.	0.	0.	0.	0.	0.	2.82E-14	2.84E-12	2.23E-10	6.04E-11 2.07E-10
45 6.30 2.85E-22	0.	7.00E-20	0.	0.	0.	0.	0.	0.	0.	2.83E-14	2.98E-12	2.23E-10	6.03E-11 2.07E-10
46 6.20 6.58E-22	0.	4.06E-20	0.	0.	0.	0.	0.	0.	0.	2.84E-14	3.13E-12	2.23E-10	6.02E-11 2.07E-10
47 6.10 3.50E-21	0.	1.00E-20	0.	0.	0.	0.	0.	0.	0.	2.85E-14	3.28E-12	2.23E-10	6.01E-11 2.07E-10
48 6.00 9.33E-21	0.	4.40E-21	0.	0.	0.	0.	0.	0.	0.	2.86E-14	3.43E-12	2.23E-10	6.00E-11 2.07E-10
49 5.90 1.54E-20	0.	3.14E-22	0.	0.	0.	0.	0.	0.	0.	2.87E-14	3.59E-12	2.23E-10	5.99E-11 2.07E-10
50 5.80 2.38E-20	0.	7.80E-24	0.	0.	0.	0.	0.	0.	0.	2.88E-14	3.76E-12	2.23E-10	5.98E-11 2.07E-10
51 5.70 2.67E-20	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.89E-14	3.94E-12	2.23E-10	5.97E-11 2.07E-10

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON D2 S-R ENERGY BANDS		TEMPERATURE (DEGREES K)		12000.		DENSITY (GM/CC)		1.293E-09		(10.0E-07 NORMAL)					
1ST POS.	2ND POS.	M2	M2*	NO	RETA	NO	GAMMA	NO	VIS-ROT	NO	0-	FREE-FREE	N	0	TOTAL AIR
											PHOTO-OET (IONS)	P.E.	P.E.		
52	5.60	3.61E-20	0.	0.	0.	5.96E-20	3.97E-19	0.	0.	0.	2.64E-14	4.25E-12	7.50E-11	7.77E-11	1.52E-10
53	5.30	3.60E-20	0.	0.	0.	7.29E-20	3.75E-19	0.	0.	0.	2.68E-14	4.48E-12	7.63E-11	7.88E-11	1.60E-10
54	5.40	4.04E-20	0.	0.	0.	6.38E-20	3.75E-19	0.	0.	0.	2.68E-14	4.74E-12	7.79E-11	8.00E-11	1.63E-10
55	5.30	3.94E-20	0.	0.	0.	6.55E-20	3.74E-19	0.	0.	0.	2.68E-14	5.02E-12	8.14E-11	8.31E-11	1.66E-10
56	5.20	2.89E-20	0.	0.	0.	6.90E-20	3.43E-19	0.	0.	0.	2.70E-14	5.31E-12	8.31E-11	8.51E-11	1.70E-10
57	5.10	2.72E-20	0.	0.	0.	6.79E-20	3.24E-19	0.	0.	0.	2.72E-14	5.60E-12	8.51E-11	8.71E-11	1.74E-10
58	5.00	2.04E-20	0.	0.	0.	6.07E-20	2.80E-19	0.	0.	0.	2.74E-14	5.90E-12	8.71E-11	8.91E-11	1.78E-10
59	4.90	1.70E-20	0.	0.	0.	6.45E-20	3.01E-19	0.	0.	0.	2.77E-14	6.20E-12	8.91E-11	9.11E-11	1.82E-10
60	4.80	1.70E-20	0.	0.	0.	7.02E-20	2.76E-19	0.	0.	0.	2.78E-14	6.77E-12	9.10E-11	9.32E-11	1.86E-10
61	4.70	1.85E-20	0.	0.	0.	6.61E-20	2.44E-19	0.	0.	0.	2.81E-14	7.21E-12	9.37E-11	9.59E-11	1.93E-10
62	4.50	2.21E-20	0.	0.	0.	6.87E-20	2.25E-19	0.	0.	0.	2.84E-14	7.70E-12	9.70E-11	9.88E-11	2.00E-10
63	4.50	2.25E-20	0.	0.	0.	6.00E-20	1.65E-19	0.	0.	0.	2.86E-14	8.22E-12	1.01E-10	9.71E-11	2.06E-10
64	4.40	2.32E-20	0.	0.	0.	5.54E-20	1.19E-19	0.	0.	0.	2.88E-14	8.80E-12	1.05E-10	9.66E-11	2.13E-10
65	4.30	2.32E-20	0.	0.	0.	5.79E-20	9.27E-20	0.	0.	0.	2.91E-14	9.43E-12	1.09E-10	9.42E-11	2.13E-10
66	4.20	1.94E-20	0.	0.	0.	5.79E-20	9.27E-20	0.	0.	0.	2.92E-14	1.01E-11	1.14E-10	9.42E-11	2.13E-10
67	4.10	1.77E-20	0.	0.	0.	5.47E-20	1.40E-20	0.	0.	0.	2.94E-14	1.10E-11	1.01E-10	9.25E-11	2.10E-10
68	4.00	1.59E-20	0.	0.	0.	5.19E-20	1.07E-20	0.	0.	0.	2.96E-14	1.17E-11	7.87E-11	8.57E-11	1.96E-10
69	3.90	1.30E-20	0.	0.	0.	4.79E-20	4.36E-21	0.	0.	0.	2.98E-14	1.27E-11	8.10E-11	8.57E-11	1.96E-10
70	3.80	1.41E-20	0.	0.	0.	4.95E-20	4.36E-21	0.	0.	0.	2.98E-14	1.37E-11	7.50E-11	7.74E-11	1.87E-10
71	3.70	1.20E-20	0.	0.	0.	5.08E-20	3.89E-20	0.	0.	0.	2.98E-14	1.46E-11	7.91E-11	8.05E-11	1.92E-10
72	3.60	1.05E-20	0.	0.	0.	5.08E-20	3.89E-20	0.	0.	0.	2.98E-14	1.56E-11	8.60E-11	8.40E-11	2.00E-10
73	3.50	8.35E-21	0.	0.	0.	4.28E-20	4.25E-20	0.	0.	0.	2.98E-14	1.65E-11	9.60E-11	9.78E-11	2.10E-10
74	3.40	8.1E-21	0.	0.	0.	4.02E-20	3.35E-20	0.	0.	0.	2.98E-14	1.75E-11	9.60E-11	9.78E-11	2.10E-10
75	3.30	6.00E-21	0.	0.	0.	4.02E-20	3.35E-20	0.	0.	0.	2.98E-14	1.85E-11	1.01E-10	1.01E-10	2.10E-10
76	3.20	5.94E-21	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	1.95E-11	1.21E-10	1.21E-10	2.10E-10
77	3.10	5.15E-21	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	2.05E-11	1.33E-10	1.33E-10	2.10E-10
78	3.00	4.44E-21	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	2.15E-11	1.43E-10	1.43E-10	2.10E-10
79	2.90	3.59E-21	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	2.25E-11	1.53E-10	1.53E-10	2.10E-10
80	2.80	3.44E-21	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	2.35E-11	1.63E-10	1.63E-10	2.10E-10
81	2.70	2.22E-21	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	2.45E-11	1.73E-10	1.73E-10	2.10E-10
82	2.60	9.74E-22	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	2.55E-11	1.83E-10	1.83E-10	2.10E-10
83	2.50	6.44E-22	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	2.65E-11	1.93E-10	1.93E-10	2.10E-10
84	2.40	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	2.75E-11	2.03E-10	2.03E-10	2.10E-10
85	2.30	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	2.85E-11	2.13E-10	2.13E-10	2.10E-10
86	2.20	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	2.95E-11	2.23E-10	2.23E-10	2.10E-10
87	2.10	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	3.05E-11	2.33E-10	2.33E-10	2.10E-10
88	2.00	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	3.15E-11	2.43E-10	2.43E-10	2.10E-10
89	1.90	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	3.25E-11	2.53E-10	2.53E-10	2.10E-10
90	1.80	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	3.35E-11	2.63E-10	2.63E-10	2.10E-10
91	1.70	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	3.45E-11	2.73E-10	2.73E-10	2.10E-10
92	1.60	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	3.55E-11	2.83E-10	2.83E-10	2.10E-10
93	1.50	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	3.65E-11	2.93E-10	2.93E-10	2.10E-10
94	1.40	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	3.75E-11	3.03E-10	3.03E-10	2.10E-10
95	1.30	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	3.85E-11	3.13E-10	3.13E-10	2.10E-10
96	1.20	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	3.95E-11	3.23E-10	3.23E-10	2.10E-10
97	1.10	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	4.05E-11	3.33E-10	3.33E-10	2.10E-10
98	1.00	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	4.15E-11	3.43E-10	3.43E-10	2.10E-10
99	0.90	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	4.25E-11	3.53E-10	3.53E-10	2.10E-10
100	0.80	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	4.35E-11	3.63E-10	3.63E-10	2.10E-10
101	0.70	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	4.45E-11	3.73E-10	3.73E-10	2.10E-10
102	0.60	0.	0.	0.	0.	3.50E-20	2.46E-20	0.	0.	0.	2.98E-14	4.55E-11	3.83E-10	3.83E-10	2.10E-10

TEMPERATURE (DEGREES K) 1000. DENSITY (GM/CC) 1.928-02 (1.0E 01 NORMAL)

230

TEMPERATURE (DEGREES K) 1200, DENSITY (GM/CC) 1.2924-03 (1.04 04 NORMAL)

232

ABSORPTION COEFFICIENTS OF HEATED AIR (AVERAGE CH.)

[illegible]

TEMPERATURE (DEGREES K) 1300. DEN31V '8M/CC) 1.203E-04 (1.0E-01 NORMAL)

235

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CH.)

TEMPERATURE (DEGREES K) 13000. DENSITY (GM/CC) 1.292E-05 (10.9E-03 NORMAL)

PHOTON OR S-R ENERGY BANDS E.V.	02 S-R COMT.	NO. 1 NO. 1	NO. 2 BETA	NO. 3 GAMMA	NO. 4 PHOTO-ELECTRIC	NO. 5 TOTAL AIR
1 10.70 8.	0.	1.30E-05	0.	0.	1.30E-05	1.30E-05
2 10.80 8.	0.	1.29E-05	0.	0.	1.29E-05	1.29E-05
3 10.90 8.	0.	1.28E-05	0.	0.	1.28E-05	1.28E-05
4 10.40 8.	0.	1.27E-05	0.	0.	1.27E-05	1.27E-05
5 10.30 8.	0.	9.99E-06	0.	0.	9.99E-06	9.99E-06
6 10.20 8.	0.	9.98E-06	0.	0.	9.98E-06	9.98E-06
7 10.10 8.	0.	9.97E-06	0.	0.	9.97E-06	9.97E-06
8 10.00 8.	0.	7.98E-06	0.	0.	7.98E-06	7.98E-06
9 9.90 8.	0.	7.97E-06	0.	0.	7.97E-06	7.97E-06
10 9.80 8.	0.	7.96E-06	0.	0.	7.96E-06	7.96E-06
11 9.70 8.	0.	5.98E-06	0.	0.	5.98E-06	5.98E-06
12 9.60 8.	0.	5.97E-06	0.	0.	5.97E-06	5.97E-06
13 9.50 8.	0.	5.27E-06	0.	0.	5.27E-06	5.27E-06
14 9.40 8.	0.	4.98E-06	0.	0.	4.98E-06	4.98E-06
15 9.30 8.	0.	4.97E-06	0.	0.	4.97E-06	4.97E-06
16 9.20 8.	0.	4.81E-06	0.	0.	4.81E-06	4.81E-06
17 9.10 8.	0.	3.99E-06	0.	0.	3.99E-06	3.99E-06
18 9.00 8.	0.	3.98E-06	0.	0.	3.98E-06	3.98E-06
19 8.90 8.	0.	3.19E-06	0.	0.	3.19E-06	3.19E-06
20 8.80 8.	0.	3.09E-06	0.	0.	3.09E-06	3.09E-06
21 8.70 8.	0.	2.99E-06	0.	0.	2.99E-06	2.99E-06
22 8.60 8.	0.	2.64E-06	0.	0.	2.64E-06	2.64E-06
23 8.50 8.	0.	2.24E-06	0.	0.	2.24E-06	2.24E-06
24 8.40 8.	0.	2.19E-06	0.	0.	2.19E-06	2.19E-06
25 8.30 8.	0.	1.89E-06	0.	0.	1.89E-06	1.89E-06
26 8.20 8.	0.	1.79E-06	0.	0.	1.79E-06	1.79E-06
27 8.10 8.	0.	1.59E-06	0.	0.	1.59E-06	1.59E-06
28 8.00 8.	0.	1.49E-06	0.	0.	1.49E-06	1.49E-06
29 7.90 8.	0.	1.29E-06	0.	0.	1.29E-06	1.29E-06
30 7.80 8.	0.	1.29E-06	0.	0.	1.29E-06	1.29E-06
31 7.70 8.	0.	1.09E-06	0.	0.	1.09E-06	1.09E-06
32 7.60 8.	0.	1.09E-06	0.	0.	1.09E-06	1.09E-06
33 7.50 8.	0.	9.91E-07	0.	5.07E-11	9.91E-07	9.91E-07
34 7.40 8.	0.	7.91E-07	0.	2.11E-10	7.91E-07	7.91E-07
35 7.30 8.	0.	7.31E-07	0.	1.38E-09	7.31E-07	7.31E-07
36 7.20 8.	0.	6.43E-07	0.	6.22E-09	6.43E-07	6.43E-07
37 7.10 8.	0.	6.03E-07	0.	1.63E-08	6.03E-07	6.03E-07
38 7.00 8.	0.	5.39E-07	0.	4.64E-08	5.39E-07	5.39E-07
39 6.90 8.	0.	4.83E-07	0.	1.12E-07	4.83E-07	4.83E-07
40 6.80 8.	0.	4.52E-07	0.	1.32E-07	4.52E-07	4.52E-07
41 6.70 8.	0.	3.63E-07	0.	2.55E-07	3.63E-07	3.63E-07
42 6.60 8.	0.	3.06E-07	0.	2.79E-07	3.06E-07	3.06E-07
43 6.50 8.	0.	2.98E-07	0.	1.96E-07	2.98E-07	2.98E-07
44 6.40 8.	0.	2.83E-07	0.	3.34E-07	2.83E-07	2.83E-07
45 6.30 8.	0.	1.01E-07	0.	1.44E-09	1.01E-07	1.01E-07
46 6.20 8.	0.	5.34E-08	0.	6.56E-09	5.34E-08	5.34E-08
47 6.10 8.	0.	2.40E-08	0.	9.63E-09	2.40E-08	2.40E-08
48 6.00 8.	0.	3.92E-09	0.	2.53E-08	3.92E-09	3.92E-09
49 5.90 8.	0.	4.23E-10	0.	2.29E-08	4.23E-10	4.23E-10
50 5.80 8.	0.	1.05E-11	0.	3.31E-08	1.05E-11	1.05E-11
51 5.70 8.	0.	0.	0.	4.54E-08	0.	0.
				5.13E-08	1.92E-07	1.92E-07

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES N) 13000. DENSITY (GM/CC) 1.291E-05 (10.0E-03 NORMAL)

PHOTON OR S-A ENERGY BANDS	N1	N2	N2*	BETA	NO	NO	NO	NO	NO	PHOTO-DET (INCS)	0*	PHOT-FREE	N	0	TOTAL AIR
1ST POS, 2ND POS, 1ST NEG.															P.E.
52	5.60	1.29E-16	0.	0.	0.	4.19E-08	2.74E-07	0.	0.	3.19E-05	1.67E-05	2.40E-04	1.40E-04	4.44E-04	4.51E-04
53	5.50	0.	0.	0.	0.	5.05E-08	2.98E-07	0.	0.	3.11E-05	1.76E-05	2.44E-04	1.51E-04	4.51E-04	4.51E-04
54	5.40	0.	0.	0.	0.	4.48E-08	1.92E-07	0.	0.	3.13E-05	1.87E-05	2.49E-04	1.53E-04	4.68E-04	4.68E-04
55	5.30	0.	0.	0.	0.	4.00E-08	2.94E-07	0.	0.	3.14E-05	1.97E-05	2.55E-04	1.56E-04	4.69E-04	4.69E-04
56	5.20	0.	0.	0.	0.	4.07E-08	1.74E-07	0.	0.	3.10E-05	2.00E-05	2.60E-04	1.59E-04	4.79E-04	4.79E-04
57	5.10	0.	0.	0.	0.	4.81E-08	2.29E-07	0.	0.	3.11E-05	2.22E-05	2.68E-04	1.62E-04	4.91E-04	4.91E-04
58	5.00	1.46E-09	0.	0.	0.	4.33E-08	2.07E-07	0.	0.	3.15E-05	2.35E-05	2.76E-04	1.65E-04	5.04E-04	5.04E-04
59	4.90	1.32E-09	0.	0.	0.	4.74E-08	2.15E-07	0.	0.	3.10E-05	2.38E-05	2.84E-04	1.68E-04	5.18E-04	5.18E-04
60	4.80	1.10E-09	0.	0.	0.	5.05E-08	1.92E-07	0.	0.	4.11E-05	2.60E-05	3.03E-04	1.72E-04	5.32E-04	5.32E-04
61	4.70	9.77E-10	0.	0.	0.	4.98E-08	1.76E-07	0.	0.	4.05E-05	2.63E-05	3.02E-04	1.72E-04	5.48E-04	5.48E-04
62	4.60	1.37E-09	0.	0.	0.	4.99E-08	1.45E-07	0.	0.	4.11E-05	3.23E-05	3.13E-04	1.91E-04	5.60E-04	5.60E-04
63	4.50	1.37E-09	0.	0.	0.	4.95E-08	1.21E-07	0.	0.	4.11E-05	3.46E-05	3.41E-04	1.96E-04	6.07E-04	6.07E-04
64	4.40	1.32E-09	0.	0.	0.	4.41E-08	8.59E-08	0.	0.	4.11E-05	3.71E-05	3.55E-04	1.95E-04	6.30E-04	6.30E-04
65	4.30	1.32E-09	0.	0.	0.	4.11E-08	5.17E-08	0.	0.	4.11E-05	3.71E-05	3.78E-04	2.04E-04	6.53E-04	6.53E-04
66	4.20	1.32E-09	0.	0.	0.	4.20E-08	3.04E-08	0.	0.	4.20E-05	3.04E-05	3.78E-04	2.04E-04	6.73E-04	6.73E-04
67	4.10	1.32E-09	0.	0.	0.	3.10E-08	1.03E-08	0.	0.	4.20E-05	4.21E-05	4.01E-04	2.04E-04	6.97E-04	6.97E-04
68	4.00	9.31E-09	0.	0.	0.	3.05E-08	8.92E-08	0.	0.	4.20E-05	4.21E-05	4.01E-04	2.04E-04	7.16E-04	7.16E-04
69	3.90	7.11E-09	0.	0.	0.	6.42E-07	3.40E-08	0.	0.	4.20E-05	4.98E-05	3.60E-04	2.04E-04	7.36E-04	7.36E-04
70	3.80	8.95E-09	0.	0.	0.	6.42E-07	3.40E-08	0.	0.	4.20E-05	4.98E-05	3.60E-04	2.04E-04	7.56E-04	7.56E-04
71	3.70	7.17E-09	0.	0.	0.	1.13E-06	1.13E-08	0.	0.	4.11E-05	5.04E-05	3.75E-04	2.04E-04	7.76E-04	7.76E-04
72	3.60	6.15E-09	0.	0.	0.	6.40E-07	6.70E-08	0.	0.	3.61E-05	6.35E-05	3.78E-04	2.04E-04	7.96E-04	7.96E-04
73	3.50	9.08E-09	0.	0.	0.	9.00E-07	1.59E-08	0.	0.	3.91E-05	7.55E-05	3.78E-04	2.04E-04	8.16E-04	8.16E-04
74	3.40	5.18E-09	0.	0.	0.	3.45E-07	1.74E-08	0.	0.	2.01E-05	8.24E-05	4.18E-04	1.00E-04	8.22E-04	8.22E-04
75	3.30	4.07E-09	0.	0.	0.	3.07E-07	1.09E-08	0.	0.	2.01E-05	8.24E-05	4.18E-04	1.00E-04	8.42E-04	8.42E-04
76	3.20	3.43E-09	0.	0.	0.	3.04E-07	1.61E-08	0.	0.	2.01E-05	9.07E-05	4.51E-04	1.10E-04	8.60E-04	8.60E-04
77	3.10	3.23E-09	0.	0.	0.	2.79E-07	2.74E-08	0.	0.	2.01E-05	9.07E-05	4.51E-04	1.10E-04	8.80E-04	8.80E-04
78	3.00	2.91E-09	0.	0.	0.	1.45E-07	7.75E-08	0.	0.	2.01E-05	1.10E-04	5.34E-04	1.24E-04	9.02E-04	9.02E-04
79	2.90	2.98E-09	0.	0.	0.	1.01E-07	4.57E-08	0.	0.	2.01E-05	1.22E-04	5.72E-04	1.30E-04	9.24E-04	9.24E-04
80	2.80	3.06E-09	0.	0.	0.	4.01E-08	2.13E-08	0.	0.	2.01E-05	1.34E-04	6.27E-04	1.50E-04	9.35E-04	9.35E-04
81	2.70	1.92E-09	0.	0.	0.	2.23E-08	1.72E-08	0.	0.	2.01E-05	1.52E-04	6.76E-04	1.62E-04	1.02E-03	1.02E-03
82	2.60	4.47E-10	0.	0.	0.	1.11E-08	3.92E-07	0.	0.	2.01E-05	1.70E-04	7.34E-04	1.74E-04	1.10E-03	1.10E-03
83	2.50	4.44E-11	0.	0.	0.	1.20E-09	3.17E-07	0.	0.	2.01E-05	1.91E-04	8.33E-04	1.96E-04	1.13E-03	1.13E-03
84	2.40	0.	0.	0.	0.	2.96E-07	4.19E-11	0.	0.	2.01E-05	2.17E-04	9.60E-04	1.83E-04	1.31E-03	1.31E-03
85	2.30	0.	0.	0.	0.	0.	0.	0.	0.	2.04E-05	2.46E-04	7.39E-04	1.24E-04	1.33E-03	1.33E-03
86	2.20	0.	0.	0.	0.	0.	0.	0.	0.	2.04E-05	2.62E-04	8.74E-04	1.49E-04	1.33E-03	1.33E-03
87	2.10	0.	0.	0.	0.	0.	0.	0.	0.	1.97E-05	3.77E-04	1.15E-03	1.74E-04	1.54E-03	1.54E-03
88	2.00	0.	0.	0.	0.	0.	0.	0.	0.	1.90E-05	4.41E-04	1.32E-03	2.00E-04	1.74E-03	1.74E-03
89	1.90	0.	0.	0.	0.	0.	0.	0.	0.	1.90E-05	4.41E-04	1.32E-03	2.00E-04	1.74E-03	1.74E-03
90	1.80	0.	0.	0.	0.	0.	0.	0.	0.	1.83E-05	5.19E-04	1.57E-03	2.74E-04	2.30E-03	2.30E-03
91	1.70	0.	0.	0.	0.	0.	0.	0.	0.	1.45E-05	7.43E-04	2.18E-03	3.90E-04	3.32E-03	3.32E-03
92	1.60	0.	0.	0.	0.	0.	0.	0.	0.	4.50E-06	9.64E-04	2.77E-03	4.72E-04	4.13E-03	4.13E-03
93	1.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.12E-03	3.40E-03	5.97E-04	5.08E-03	5.08E-03
94	1.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.48E-03	4.34E-03	7.33E-04	6.08E-03	6.08E-03
95	1.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.78E-03	4.44E-03	7.33E-04	6.08E-03	6.08E-03
96	1.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.33E-03	5.40E-03	9.01E-04	8.71E-03	8.71E-03
97	1.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.13E-03	6.03E-03	1.01E-03	1.00E-02	1.00E-02
98	1.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	4.33E-03	7.53E-03	1.19E-03	1.31E-02	1.31E-02
99	0.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.19E-03	8.68E-03	1.37E-03	1.62E-02	1.62E-02
100	0.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.24E-03	9.53E-03	1.49E-03	2.02E-02	2.02E-02
101	0.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.40E-02	1.04E-02	1.64E-03	2.72E-02	2.72E-02
102	0.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

TEMPERATURE (°C) 1300. DENSITY (GM/CC) 1.2934-04 (19.05-04 NORMAL)

[illegible]

TEMPERATURE (DEGREES K) 1300. DENSITY (GM/CC) 1.293E-06 (19.0E-04 NORMAL)

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ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON	02 S-A	03 S-A	04 S-A	05 S-A	06 S-A	07 S-A	08 S-A	09 S-A	10 S-A	11 S-A	12 S-A	13 S-A	14 S-A	15 S-A	16 S-A	17 S-A	18 S-A	19 S-A	20 S-A	21 S-A	22 S-A	23 S-A	24 S-A	25 S-A	26 S-A	27 S-A	28 S-A	29 S-A	30 S-A	31 S-A	32 S-A	33 S-A	34 S-A	35 S-A	36 S-A	37 S-A	38 S-A	39 S-A	40 S-A	41 S-A	42 S-A	43 S-A	44 S-A	45 S-A	46 S-A	47 S-A	48 S-A	49 S-A	50 S-A	51 S-A	52 S-A	53 S-A	54 S-A	55 S-A	56 S-A	57 S-A	58 S-A	59 S-A	60 S-A	61 S-A	62 S-A	63 S-A	64 S-A	65 S-A	66 S-A	67 S-A	68 S-A	69 S-A	70 S-A	71 S-A	72 S-A	73 S-A	74 S-A	75 S-A	76 S-A	77 S-A	78 S-A	79 S-A	80 S-A	81 S-A	82 S-A	83 S-A	84 S-A	85 S-A	86 S-A	87 S-A	88 S-A	89 S-A	90 S-A	91 S-A	92 S-A	93 S-A	94 S-A	95 S-A	96 S-A	97 S-A	98 S-A	99 S-A	100 S-A	101 S-A	102 S-A	103 S-A	104 S-A	105 S-A	106 S-A	107 S-A	108 S-A	109 S-A	110 S-A	111 S-A	112 S-A	113 S-A	114 S-A	115 S-A	116 S-A	117 S-A	118 S-A	119 S-A	120 S-A	121 S-A	122 S-A	123 S-A	124 S-A	125 S-A	126 S-A	127 S-A	128 S-A	129 S-A	130 S-A	131 S-A	132 S-A	133 S-A	134 S-A	135 S-A	136 S-A	137 S-A	138 S-A	139 S-A	140 S-A	141 S-A	142 S-A	143 S-A	144 S-A	145 S-A	146 S-A	147 S-A	148 S-A	149 S-A	150 S-A	151 S-A	152 S-A	153 S-A	154 S-A	155 S-A	156 S-A	157 S-A	158 S-A	159 S-A	160 S-A	161 S-A	162 S-A	163 S-A	164 S-A	165 S-A	166 S-A	167 S-A	168 S-A	169 S-A	170 S-A	171 S-A	172 S-A	173 S-A	174 S-A	175 S-A	176 S-A	177 S-A	178 S-A	179 S-A	180 S-A	181 S-A	182 S-A	183 S-A	184 S-A	185 S-A	186 S-A	187 S-A	188 S-A	189 S-A	190 S-A	191 S-A	192 S-A	193 S-A	194 S-A	195 S-A	196 S-A	197 S-A	198 S-A	199 S-A	200 S-A	201 S-A	202 S-A	203 S-A	204 S-A	205 S-A	206 S-A	207 S-A	208 S-A	209 S-A	210 S-A	211 S-A	212 S-A	213 S-A	214 S-A	215 S-A	216 S-A	217 S-A	218 S-A	219 S-A	220 S-A	221 S-A	222 S-A	223 S-A	224 S-A	225 S-A	226 S-A	227 S-A	228 S-A	229 S-A	230 S-A	231 S-A	232 S-A	233 S-A	234 S-A	235 S-A	236 S-A	237 S-A	238 S-A	239 S-A	240 S-A	241 S-A	242 S-A	243 S-A	244 S-A	245 S-A	246 S-A	247 S-A	248 S-A	249 S-A	250 S-A	251 S-A	252 S-A	253 S-A	254 S-A	255 S-A	256 S-A	257 S-A	258 S-A	259 S-A	260 S-A	261 S-A	262 S-A	263 S-A	264 S-A	265 S-A	266 S-A	267 S-A	268 S-A	269 S-A	270 S-A	271 S-A	272 S-A	273 S-A	274 S-A	275 S-A	276 S-A	277 S-A	278 S-A	279 S-A	280 S-A	281 S-A	282 S-A	283 S-A	284 S-A	285 S-A	286 S-A	287 S-A	288 S-A	289 S-A	290 S-A	291 S-A	292 S-A	293 S-A	294 S-A	295 S-A	296 S-A	297 S-A	298 S-A	299 S-A	300 S-A	301 S-A	302 S-A	303 S-A	304 S-A	305 S-A	306 S-A	307 S-A	308 S-A	309 S-A	310 S-A	311 S-A	312 S-A	313 S-A	314 S-A	315 S-A	316 S-A	317 S-A	318 S-A	319 S-A	320 S-A	321 S-A	322 S-A	323 S-A	324 S-A	325 S-A	326 S-A	327 S-A	328 S-A	329 S-A	330 S-A	331 S-A	332 S-A	333 S-A	334 S-A	335 S-A	336 S-A	337 S-A	338 S-A	339 S-A	340 S-A	341 S-A	342 S-A	343 S-A	344 S-A	345 S-A	346 S-A	347 S-A	348 S-A	349 S-A	350 S-A	351 S-A	352 S-A	353 S-A	354 S-A	355 S-A	356 S-A	357 S-A	358 S-A	359 S-A	360 S-A	361 S-A	362 S-A	363 S-A	364 S-A	365 S-A	366 S-A	367 S-A	368 S-A	369 S-A	370 S-A	371 S-A	372 S-A	373 S-A	374 S-A	375 S-A	376 S-A	377 S-A	378 S-A	379 S-A	380 S-A	38
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ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)
 TEMPERATURE (DEGREES K) 13000. DENSITY (GM/CC) 1.293E-07 (1.0E-05 NORMAL)

PHOTON OR S-R ENERGY BANDS	N2 1ST POS.	N2 2ND POS.	N2 3RD POS.	N2+ 1ST NEG.	N2+ 2ND NEG.	NO SUMMA	NO VIB-ROT	NO 2	0- PHOTO-DET	FREE-FREE A	P.E.	3	TOTAL AIR
52	5.60	7.49E-22	0.	0.	0.	1.69E-13	1.11E-12	0.	3.00E-09	3.01E-08	4.07E-07	1.57E-07	7.50E-07
53	5.50	0.	0.	0.	0.	2.05E-13	1.04E-12	0.	3.80E-09	3.19E-08	4.14E-07	3.62E-07	8.12E-07
54	5.40	0.	0.	0.	0.	1.83E-13	7.83E-13	0.	3.90E-09	3.36E-08	4.23E-07	3.08E-07	8.26E-07
55	5.30	0.	0.	0.	0.	1.67E-13	1.05E-12	0.	3.92E-09	3.59E-08	4.33E-07	3.74E-07	8.46E-07
56	5.20	0.	0.	0.	0.	1.98E-13	7.07E-13	0.	3.95E-09	3.74E-08	4.42E-07	3.81E-07	8.65E-07
57	5.10	0.	0.	0.	0.	1.98E-13	7.32E-13	0.	3.92E-09	3.99E-08	4.54E-07	3.89E-07	8.87E-07
58	5.00	9.57E-15	0.	0.	0.	1.78E-13	4.42E-13	0.	4.02E-09	4.24E-08	4.68E-07	3.97E-07	9.11E-07
59	4.90	2.59E-14	0.	0.	0.	1.95E-13	8.87E-13	0.	4.55E-09	4.70E-08	4.82E-07	4.05E-07	9.36E-07
60	4.80	6.99E-14	0.	0.	0.	2.05E-13	8.23E-13	0.	4.80E-09	4.79E-08	4.97E-07	4.13E-07	9.63E-07
61	4.70	3.33E-14	0.	0.	0.	2.01E-13	7.30E-13	0.	4.13E-09	5.11E-08	5.13E-07	4.24E-07	9.92E-07
62	4.60	7.33E-14	0.	0.	0.	2.03E-13	6.40E-13	0.	4.15E-09	5.49E-08	5.32E-07	4.34E-07	1.02E-06
63	4.50	3.32E-14	0.	0.	0.	1.81E-13	4.92E-13	0.	4.18E-09	5.82E-08	5.55E-07	4.45E-07	1.06E-06
64	4.40	7.02E-14	0.	0.	0.	1.80E-13	3.50E-13	0.	4.22E-09	6.23E-08	5.78E-07	4.56E-07	1.10E-06
65	4.30	7.62E-14	0.	0.	0.	1.65E-13	2.11E-13	0.	4.29E-09	6.69E-08	6.03E-07	4.63E-07	1.14E-06
66	4.20	6.44E-14	0.	0.	0.	1.75E-13	1.94E-13	0.	4.20E-09	7.17E-08	6.29E-07	4.30E-07	1.14E-06
67	4.10	5.93E-14	0.	0.	0.	1.67E-13	4.19E-14	0.	4.30E-09	7.71E-08	6.54E-07	4.31E-07	1.16E-06
68	4.00	5.36E-14	0.	0.	0.	1.50E-13	3.20E-14	0.	4.32E-09	8.30E-08	6.91E-07	4.39E-07	1.19E-06
69	3.90	4.64E-14	0.	0.	0.	1.41E-13	1.70E-14	0.	4.30E-09	8.96E-08	7.45E-07	4.45E-07	1.23E-06
70	3.80	4.01E-14	0.	0.	0.	1.50E-13	0.	0.	4.20E-09	9.69E-08	8.04E-07	4.49E-07	1.26E-06
71	3.70	4.33E-14	0.	0.	0.	1.29E-13	0.	0.	4.22E-09	1.05E-07	8.55E-07	4.55E-07	1.30E-06
72	3.60	3.55E-14	0.	0.	0.	1.38E-13	0.	0.	3.95E-09	1.14E-07	9.01E-07	4.61E-07	1.34E-06
73	3.50	3.46E-14	0.	0.	0.	1.42E-13	1.01E-13	0.	3.82E-09	1.24E-07	9.50E-07	4.68E-07	1.38E-06
74	3.40	2.97E-14	0.	0.	0.	1.32E-13	0.	0.	2.99E-09	1.34E-07	9.20E-07	4.76E-07	1.42E-06
75	3.30	2.94E-14	0.	0.	0.	1.40E-13	8.65E-14	0.	2.09E-09	1.49E-07	9.94E-07	4.84E-07	1.46E-06
76	3.20	1.99E-14	0.	0.	0.	1.39E-13	0.92E-14	0.	2.00E-09	1.63E-07	1.05E-07	4.92E-07	1.50E-06
77	3.10	1.92E-14	0.	0.	0.	8.93E-13	1.80E-13	0.	2.10E-09	1.80E-07	1.10E-07	5.00E-07	1.54E-06
78	3.00	1.92E-14	0.	0.	0.	4.76E-13	5.27E-13	0.	2.11E-09	2.20E-07	1.25E-07	5.08E-07	1.58E-06
79	2.90	1.32E-14	0.	0.	0.	2.49E-13	3.11E-13	0.	2.11E-09	2.44E-07	1.40E-07	5.16E-07	1.62E-06
80	2.80	1.35E-14	0.	0.	0.	1.39E-13	1.97E-13	0.	2.11E-09	2.73E-07	1.55E-07	5.24E-07	1.66E-06
81	2.70	8.33E-15	0.	0.	0.	6.15E-14	2.94E-13	0.	2.11E-09	3.04E-07	1.70E-07	5.32E-07	1.70E-06
82	2.60	3.22E-15	0.	0.	0.	3.31E-14	2.41E-13	0.	2.11E-09	3.44E-07	1.85E-07	5.40E-07	1.74E-06
83	2.50	2.56E-15	0.	0.	0.	3.71E-15	2.15E-13	0.	2.11E-09	3.84E-07	2.00E-07	5.48E-07	1.78E-06
84	2.40	0.	0.	0.	0.	2.01E-11	1.06E-13	0.	2.11E-09	4.24E-07	2.15E-07	5.56E-07	1.82E-06
85	2.30	0.	0.	0.	0.	0.	0.	0.	2.00E-09	4.64E-07	2.30E-07	5.64E-07	1.86E-06
86	2.20	0.	0.	0.	0.	0.	0.	0.	2.00E-09	5.07E-07	2.45E-07	5.72E-07	1.90E-06
87	2.10	0.	0.	0.	0.	0.	0.	0.	2.00E-09	5.48E-07	2.60E-07	5.80E-07	1.94E-06
88	2.00	0.	0.	0.	0.	0.	0.	0.	2.01E-09	5.88E-07	2.75E-07	5.88E-07	1.98E-06
89	1.90	0.	0.	0.	0.	0.	0.	0.	1.99E-09	6.29E-07	2.90E-07	5.96E-07	2.02E-06
90	1.80	0.	0.	0.	0.	0.	0.	0.	1.99E-09	6.69E-07	3.05E-07	6.04E-07	2.06E-06
91	1.70	0.	0.	0.	0.	0.	0.	0.	1.97E-09	7.09E-07	3.20E-07	6.12E-07	2.10E-06
92	1.60	0.	0.	0.	0.	0.	0.	0.	1.97E-09	7.49E-07	3.35E-07	6.20E-07	2.14E-06
93	1.50	0.	0.	0.	0.	0.	0.	0.	1.95E-09	7.89E-07	3.50E-07	6.28E-07	2.18E-06
94	1.40	0.	0.	0.	0.	0.	0.	0.	1.95E-09	8.29E-07	3.65E-07	6.36E-07	2.22E-06
95	1.30	0.	0.	0.	0.	0.	0.	0.	1.93E-09	8.69E-07	3.80E-07	6.44E-07	2.26E-06
96	1.20	0.	0.	0.	0.	0.	0.	0.	1.93E-09	9.09E-07	3.95E-07	6.52E-07	2.30E-06
97	1.10	0.	0.	0.	0.	0.	0.	0.	1.91E-09	9.49E-07	4.10E-07	6.60E-07	2.34E-06
98	1.00	0.	0.	0.	0.	0.	0.	0.	1.89E-09	9.89E-07	4.25E-07	6.68E-07	2.38E-06
99	0.90	0.	0.	0.	0.	0.	0.	0.	1.89E-09	1.02E-06	4.40E-07	6.76E-07	2.42E-06
100	0.80	0.	0.	0.	0.	0.	0.	0.	1.87E-09	1.06E-06	4.55E-07	6.84E-07	2.46E-06
101	0.70	0.	0.	0.	0.	0.	0.	0.	1.87E-09	1.10E-06	4.70E-07	6.92E-07	2.50E-06
102	0.60	0.	0.	0.	0.	0.	0.	0.	1.85E-09	1.14E-06	4.85E-07	7.00E-07	2.54E-06

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)
TEMPERATURE (DEGREES C) 13000. DENSITY (GM/CC) 1.2036-00 (1.00-00 NORMAL)

WOTON 02 S-R	02 S-R	W2 3-M	NO	NO	NO	NO	0-	FREE-FREE	N	0	TOTAL AIR
ENERGY BANDS	CONV.	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	2	PHOTO-DET (1/cm)	P.E.	P.E.	P.E.
E.V.											
1 10-20 5	0.	0.	0.	0.	0.	0.	0.	5.045-12	5.045-11	1.025-00	4.345-09
2 10-20 6	0.	0.	0.	0.	0.	0.	0.	5.075-12	5.075-11	1.035-00	4.355-09
3 10-20 7	0.	0.	0.	0.	0.	0.	0.	5.105-12	5.105-11	1.045-00	4.365-09
4 10-20 8	0.	0.	0.	0.	0.	0.	0.	5.135-12	5.135-11	1.055-00	4.375-09
5 10-20 9	0.	0.	0.	0.	0.	0.	0.	5.165-12	5.165-11	1.065-00	4.385-09
6 10-20 10	0.	0.	0.	0.	0.	0.	0.	5.195-12	5.195-11	1.075-00	4.395-09
7 10-20 11	0.	0.	0.	0.	0.	0.	0.	5.225-12	5.225-11	1.085-00	4.405-09
8 10-20 12	0.	0.	0.	0.	0.	0.	0.	5.255-12	5.255-11	1.095-00	4.415-09
9 10-20 13	0.	0.	0.	0.	0.	0.	0.	5.285-12	5.285-11	1.105-00	4.425-09
10 10-20 14	0.	0.	0.	0.	0.	0.	0.	5.315-12	5.315-11	1.115-00	4.435-09
11 10-20 15	0.	0.	0.	0.	0.	0.	0.	5.345-12	5.345-11	1.125-00	4.445-09
12 10-20 16	0.	0.	0.	0.	0.	0.	0.	5.375-12	5.375-11	1.135-00	4.455-09
13 10-20 17	0.	0.	0.	0.	0.	0.	0.	5.405-12	5.405-11	1.145-00	4.465-09
14 10-20 18	0.	0.	0.	0.	0.	0.	0.	5.435-12	5.435-11	1.155-00	4.475-09
15 10-20 19	0.	0.	0.	0.	0.	0.	0.	5.465-12	5.465-11	1.165-00	4.485-09
16 10-20 20	0.	0.	0.	0.	0.	0.	0.	5.495-12	5.495-11	1.175-00	4.495-09
17 10-20 21	0.	0.	0.	0.	0.	0.	0.	5.525-12	5.525-11	1.185-00	4.505-09
18 10-20 22	0.	0.	0.	0.	0.	0.	0.	5.555-12	5.555-11	1.195-00	4.515-09
19 10-20 23	0.	0.	0.	0.	0.	0.	0.	5.585-12	5.585-11	1.205-00	4.525-09
20 10-20 24	0.	0.	0.	0.	0.	0.	0.	5.615-12	5.615-11	1.215-00	4.535-09
21 10-20 25	0.	0.	0.	0.	0.	0.	0.	5.645-12	5.645-11	1.225-00	4.545-09
22 10-20 26	0.	0.	0.	0.	0.	0.	0.	5.675-12	5.675-11	1.235-00	4.555-09
23 10-20 27	0.	0.	0.	0.	0.	0.	0.	5.705-12	5.705-11	1.245-00	4.565-09
24 10-20 28	0.	0.	0.	0.	0.	0.	0.	5.735-12	5.735-11	1.255-00	4.575-09
25 10-20 29	0.	0.	0.	0.	0.	0.	0.	5.765-12	5.765-11	1.265-00	4.585-09
26 10-20 30	0.	0.	0.	0.	0.	0.	0.	5.795-12	5.795-11	1.275-00	4.595-09
27 10-20 31	0.	0.	0.	0.	0.	0.	0.	5.825-12	5.825-11	1.285-00	4.605-09
28 10-20 32	0.	0.	0.	0.	0.	0.	0.	5.855-12	5.855-11	1.295-00	4.615-09
29 10-20 33	0.	0.	0.	0.	0.	0.	0.	5.885-12	5.885-11	1.305-00	4.625-09
30 10-20 34	0.	0.	0.	0.	0.	0.	0.	5.915-12	5.915-11	1.315-00	4.635-09
31 10-20 35	0.	0.	0.	0.	0.	0.	0.	5.945-12	5.945-11	1.325-00	4.645-09
32 10-20 36	0.	0.	0.	0.	0.	0.	0.	5.975-12	5.975-11	1.335-00	4.655-09
33 10-20 37	0.	0.	0.	0.	0.	0.	0.	6.005-12	6.005-11	1.345-00	4.665-09
34 10-20 38	0.	0.	0.	0.	0.	0.	0.	6.035-12	6.035-11	1.355-00	4.675-09
35 10-20 39	0.	0.	0.	0.	0.	0.	0.	6.065-12	6.065-11	1.365-00	4.685-09
36 10-20 40	0.	0.	0.	0.	0.	0.	0.	6.095-12	6.095-11	1.375-00	4.695-09
37 10-20 41	0.	0.	0.	0.	0.	0.	0.	6.125-12	6.125-11	1.385-00	4.705-09
38 10-20 42	0.	0.	0.	0.	0.	0.	0.	6.155-12	6.155-11	1.395-00	4.715-09
39 10-20 43	0.	0.	0.	0.	0.	0.	0.	6.185-12	6.185-11	1.405-00	4.725-09
40 10-20 44	0.	0.	0.	0.	0.	0.	0.	6.215-12	6.215-11	1.415-00	4.735-09
41 10-20 45	0.	0.	0.	0.	0.	0.	0.	6.245-12	6.245-11	1.425-00	4.745-09
42 10-20 46	0.	0.	0.	0.	0.	0.	0.	6.275-12	6.275-11	1.435-00	4.755-09
43 10-20 47	0.	0.	0.	0.	0.	0.	0.	6.305-12	6.305-11	1.445-00	4.765-09
44 10-20 48	0.	0.	0.	0.	0.	0.	0.	6.335-12	6.335-11	1.455-00	4.775-09
45 10-20 49	0.	0.	0.	0.	0.	0.	0.	6.365-12	6.365-11	1.465-00	4.785-09
46 10-20 50	0.	0.	0.	0.	0.	0.	0.	6.395-12	6.395-11	1.475-00	4.795-09
47 10-20 51	0.	0.	0.	0.	0.	0.	0.	6.425-12	6.425-11	1.485-00	4.805-09
48 10-20 52	0.	0.	0.	0.	0.	0.	0.	6.455-12	6.455-11	1.495-00	4.815-09
49 10-20 53	0.	0.	0.	0.	0.	0.	0.	6.485-12	6.485-11	1.505-00	4.825-09
50 10-20 54	0.	0.	0.	0.	0.	0.	0.	6.515-12	6.515-11	1.515-00	4.835-09
51 10-20 55	0.	0.	0.	0.	0.	0.	0.	6.545-12	6.545-11	1.525-00	4.845-09

TEMPERATURE (DEGREES K) 1300. DENSITY (GM/CC) 1.293E-08 (1.0E-05 NORMAL)

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ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)
TEMPERATURE (DEGREES K) 13000. DENSITY (GM/CC) 1.292E-09 (1.2E-06 NORMAL)

PHOTON OR 3-R ENERGY BANDS E.V.	02 3-R CONT.	NO BETA	NO GAMMA	NO 2	Q- PHOTO-DET (1/CM)	N P.E.	0 P.E.	TOTAL AIR
1 10.70 0.	0.	0.	0.	0.	6.24E-15	5.07E-13	1.00E-10	4.34E-11 1.09E-10
2 10.60 0.	0.	0.	0.	0.	6.24E-15	6.04E-13	1.00E-10	4.34E-11 1.09E-10
3 10.50 0.	0.	0.	0.	0.	6.24E-15	6.21E-13	1.00E-10	4.34E-11 1.09E-10
4 10.40 0.	0.	0.	0.	0.	6.24E-15	6.38E-13	1.00E-10	4.34E-11 1.09E-10
5 10.30 0.	0.	0.	0.	0.	6.24E-15	6.55E-13	1.00E-10	4.34E-11 1.09E-10
6 10.20 0.	0.	0.	0.	0.	6.24E-15	6.72E-13	1.00E-10	4.34E-11 1.09E-10
7 10.10 0.	0.	0.	0.	0.	6.24E-15	6.89E-13	1.00E-10	4.34E-11 1.09E-10
8 10.00 0.	0.	0.	0.	0.	6.24E-15	7.06E-13	1.00E-10	4.34E-11 1.09E-10
9 9.90 0.	0.	0.	0.	0.	6.24E-15	7.23E-13	1.00E-10	4.34E-11 1.09E-10
10 9.80 0.	0.	0.	0.	0.	6.24E-15	7.40E-13	1.00E-10	4.34E-11 1.09E-10
11 9.70 0.	0.	0.	0.	0.	6.24E-15	7.57E-13	1.00E-10	4.34E-11 1.09E-10
12 9.60 0.	0.	0.	0.	0.	6.24E-15	7.74E-13	1.00E-10	4.34E-11 1.09E-10
13 9.50 0.	0.	0.	0.	0.	6.24E-15	7.91E-13	1.00E-10	4.34E-11 1.09E-10
14 9.40 0.	0.	0.	0.	0.	6.24E-15	8.08E-13	1.00E-10	4.34E-11 1.09E-10
15 9.30 0.	0.	0.	0.	0.	6.24E-15	8.25E-13	1.00E-10	4.34E-11 1.09E-10
16 9.20 0.	0.	0.	0.	0.	6.24E-15	8.42E-13	1.00E-10	4.34E-11 1.09E-10
17 9.10 0.	0.	0.	0.	0.	6.24E-15	8.59E-13	1.00E-10	4.34E-11 1.09E-10
18 9.00 0.	0.	0.	0.	0.	6.24E-15	8.76E-13	1.00E-10	4.34E-11 1.09E-10
19 8.90 0.	0.	0.	0.	0.	6.24E-15	8.93E-13	1.00E-10	4.34E-11 1.09E-10
20 8.80 0.	0.	0.	0.	0.	6.24E-15	9.10E-13	1.00E-10	4.34E-11 1.09E-10
21 8.70 0.	0.	0.	0.	0.	6.24E-15	9.27E-13	1.00E-10	4.34E-11 1.09E-10
22 8.60 0.	0.	0.	0.	0.	6.24E-15	9.44E-13	1.00E-10	4.34E-11 1.09E-10
23 8.50 0.	0.	0.	0.	0.	6.24E-15	9.61E-13	1.00E-10	4.34E-11 1.09E-10
24 8.40 0.	0.	0.	0.	0.	6.24E-15	9.78E-13	1.00E-10	4.34E-11 1.09E-10
25 8.30 0.	0.	0.	0.	0.	6.24E-15	9.95E-13	1.00E-10	4.34E-11 1.09E-10
26 8.20 0.	0.	0.	0.	0.	6.24E-15	1.01E-12	4.00E-11	4.34E-11 9.37E-11
27 8.10 0.	0.	0.	0.	0.	6.24E-15	1.07E-12	4.00E-11	4.34E-11 9.37E-11
28 8.00 0.	0.	0.	0.	0.	6.24E-15	1.13E-12	4.00E-11	4.34E-11 9.37E-11
29 7.90 0.	0.	0.	0.	0.	6.24E-15	1.19E-12	4.00E-11	4.34E-11 9.37E-11
30 7.80 0.	0.	0.	0.	0.	6.24E-15	1.25E-12	4.00E-11	4.34E-11 9.37E-11
31 7.70 0.	0.	0.	0.	0.	6.24E-15	1.31E-12	4.00E-11	4.34E-11 9.37E-11
32 7.60 0.	0.	0.	0.	0.	6.24E-15	1.37E-12	4.00E-11	4.34E-11 9.37E-11
33 7.50 0.	0.	0.	0.	0.	6.24E-15	1.43E-12	4.00E-11	4.34E-11 9.37E-11
34 7.40 0.	0.	0.	0.	0.	6.24E-15	1.49E-12	4.00E-11	4.34E-11 9.37E-11
35 7.30 0.	0.	0.	0.	0.	6.24E-15	1.55E-12	4.00E-11	4.34E-11 9.37E-11
36 7.20 0.	0.	0.	0.	0.	6.24E-15	1.61E-12	4.00E-11	4.34E-11 9.37E-11
37 7.10 0.	0.	0.	0.	0.	6.24E-15	1.67E-12	4.00E-11	4.34E-11 9.37E-11
38 7.00 0.	0.	0.	0.	0.	6.24E-15	1.73E-12	4.00E-11	4.34E-11 9.37E-11
39 6.90 0.	0.	0.	0.	0.	6.24E-15	1.79E-12	4.00E-11	4.34E-11 9.37E-11
40 6.80 0.	0.	0.	0.	0.	6.24E-15	1.85E-12	4.00E-11	4.34E-11 9.37E-11
41 6.70 0.	0.	0.	0.	0.	6.24E-15	1.91E-12	4.00E-11	4.34E-11 9.37E-11
42 6.60 0.	0.	0.	0.	0.	6.24E-15	1.97E-12	4.00E-11	4.34E-11 9.37E-11
43 6.50 0.	0.	0.	0.	0.	6.24E-15	2.03E-12	4.00E-11	4.34E-11 9.37E-11
44 6.40 0.	0.	0.	0.	0.	6.24E-15	2.09E-12	4.00E-11	4.34E-11 9.37E-11
45 6.30 0.	0.	0.	0.	0.	6.24E-15	2.15E-12	4.00E-11	4.34E-11 9.37E-11
46 6.20 0.	0.	0.	0.	0.	6.24E-15	2.21E-12	4.00E-11	4.34E-11 9.37E-11
47 6.10 0.	0.	0.	0.	0.	6.24E-15	2.27E-12	4.00E-11	4.34E-11 9.37E-11
48 6.00 0.	0.	0.	0.	0.	6.24E-15	2.33E-12	4.00E-11	4.34E-11 9.37E-11
49 5.90 0.	0.	0.	0.	0.	6.24E-15	2.39E-12	4.00E-11	4.34E-11 9.37E-11
50 5.80 0.	0.	0.	0.	0.	6.24E-15	2.45E-12	4.00E-11	4.34E-11 9.37E-11
51 5.70 0.	0.	0.	0.	0.	6.24E-15	2.51E-12	4.00E-11	4.34E-11 9.37E-11

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON O2 S-R		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-09 (1.0E-06 NORMAL)		0		TOTAL AIR	
ENERGY BANDS	1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	RETA	GAUSS	WIG-ROT	NO	2	PHOTO-7 (FMS)	P.E.
52	5.60	1.41E-20	0.	0.	3.35E-21	2.21E-20	0.	0.	0.	6.68E-15	4.13E-12
53	5.91	0.	0.	0.	4.09E-21	2.07E-20	0.	0.	0.	6.69E-15	4.36E-12
54	5.49	0.	0.	0.	3.72E-21	1.56E-20	0.	0.	0.	6.73E-15	4.61E-12
55	5.30	0.	0.	0.	3.72E-21	2.09E-20	0.	0.	0.	6.77E-15	4.84E-12
56	5.20	0.	0.	0.	3.49E-21	1.40E-20	0.	0.	0.	6.81E-15	5.17E-12
57	5.10	0.	0.	0.	3.49E-21	1.89E-20	0.	0.	0.	6.87E-15	5.42E-12
58	5.03	2.07E-20	0.	0.	3.50E-21	1.87E-20	0.	0.	0.	6.93E-15	5.62E-12
59	4.90	4.90E-20	0.	0.	3.63E-21	1.76E-20	0.	0.	0.	6.99E-15	5.84E-12
60	4.80	4.80E-20	0.	0.	4.07E-21	1.63E-20	0.	0.	0.	7.04E-15	6.09E-12
61	4.70	1.10E-21	0.	0.	3.98E-21	1.49E-20	0.	0.	0.	7.10E-15	7.01E-12
62	4.60	1.94E-21	0.	0.	4.04E-21	1.33E-20	0.	0.	0.	7.16E-15	7.48E-12
63	4.50	1.99E-21	0.	0.	3.68E-21	9.81E-21	0.	0.	0.	7.22E-15	7.90E-12
64	4.40	1.49E-21	0.	0.	3.75E-21	4.94E-21	0.	0.	0.	7.27E-15	8.35E-12
65	4.30	1.32E-21	0.	0.	3.72E-21	4.10E-21	0.	0.	0.	7.34E-15	8.75E-12
66	4.20	1.40E-21	0.	0.	3.47E-21	3.10E-21	0.	0.	0.	7.39E-15	9.04E-12
67	4.10	1.20E-21	0.	0.	3.31E-21	8.31E-22	0.	0.	0.	7.42E-15	1.04E-11
68	4.00	1.10E-21	0.	0.	3.14E-21	6.39E-22	0.	0.	0.	7.45E-15	1.14E-11
69	3.90	9.61E-22	0.	0.	2.80E-21	2.55E-22	0.	0.	0.	7.48E-15	1.24E-11
70	3.80	3.70E-22	0.	0.	2.94E-21	0.	0.	0.	0.	7.52E-15	1.34E-11
71	3.70	8.94E-22	0.	0.	2.43E-21	0.	0.	0.	0.	7.55E-15	1.44E-11
72	3.60	7.91E-22	0.	0.	2.64E-21	0.	0.	0.	0.	7.58E-15	1.54E-11
73	3.50	7.23E-22	0.	0.	2.64E-21	0.	0.	0.	0.	7.61E-15	1.64E-11
74	3.40	6.44E-22	0.	0.	2.20E-21	0.	0.	0.	0.	7.64E-15	1.74E-11
75	3.30	5.87E-22	0.	0.	2.22E-21	0.	0.	0.	0.	7.67E-15	1.84E-11
76	3.20	5.30E-22	0.	0.	1.72E-21	0.	0.	0.	0.	7.70E-15	1.94E-11
77	3.10	4.93E-22	0.	0.	1.77E-21	0.	0.	0.	0.	7.73E-15	2.04E-11
78	3.00	3.91E-22	0.	0.	1.64E-21	0.	0.	0.	0.	7.76E-15	2.14E-11
79	2.90	2.86E-22	0.	0.	1.50E-21	0.	0.	0.	0.	7.79E-15	2.24E-11
80	2.80	2.82E-22	0.	0.	1.50E-21	0.	0.	0.	0.	7.82E-15	2.34E-11
81	2.70	1.80E-22	0.	0.	1.17E-21	7.14E-22	0.	0.	0.	7.85E-15	2.44E-11
82	2.60	8.07E-23	0.	0.	1.55E-22	0.	0.	0.	0.	7.88E-15	2.54E-11
83	2.50	5.54E-24	0.	0.	1.57E-23	0.	0.	0.	0.	7.91E-15	2.64E-11
84	2.40	0.	0.	0.	3.12E-17	3.71E-24	0.	0.	0.	7.94E-15	2.74E-11
85	2.30	0.	0.	0.	0.	0.	0.	0.	0.	7.97E-15	2.84E-11
86	2.20	0.	0.	0.	0.	0.	0.	0.	0.	7.99E-15	2.94E-11
87	2.10	0.	0.	0.	0.	0.	0.	0.	0.	8.02E-15	3.04E-11
88	2.00	0.	0.	0.	0.	0.	0.	0.	0.	8.05E-15	3.14E-11
89	1.90	0.	0.	0.	0.	0.	0.	0.	0.	8.08E-15	3.24E-11
90	1.80	0.	0.	0.	0.	0.	0.	0.	0.	8.11E-15	3.34E-11
91	1.70	0.	0.	0.	0.	0.	0.	0.	0.	8.14E-15	3.44E-11
92	1.60	0.	0.	0.	0.	0.	0.	0.	0.	8.17E-15	3.54E-11
93	1.50	0.	0.	0.	0.	0.	0.	0.	0.	8.20E-15	3.64E-11
94	1.40	0.	0.	0.	0.	0.	0.	0.	0.	8.23E-15	3.74E-11
95	1.30	0.	0.	0.	0.	0.	0.	0.	0.	8.26E-15	3.84E-11
96	1.20	0.	0.	0.	0.	0.	0.	0.	0.	8.29E-15	3.94E-11
97	1.10	0.	0.	0.	0.	0.	0.	0.	0.	8.32E-15	4.04E-11
98	1.00	0.	0.	0.	0.	0.	0.	0.	0.	8.35E-15	4.14E-11
99	0.90	0.	0.	0.	0.	0.	0.	0.	0.	8.38E-15	4.24E-11
100	0.80	0.	0.	0.	0.	0.	0.	0.	0.	8.41E-15	4.34E-11
101	0.70	0.	0.	0.	0.	0.	0.	0.	0.	8.44E-15	4.44E-11
102	0.60	0.	0.	0.	0.	0.	0.	0.	0.	8.47E-15	4.54E-11

TEMPERATURE (INCHES H) 14000. DENSITY (GM/CM³) 1.70E-02 (1.0E 01 NORMAL)

PHOTON OR S-Q ENERGY BANDS E.V.	02 S-Q CONT.	03 S-Q CONT.	NO DATA	NO GAMMA	NO 2	PHOTO-DET (TIME)	FREE-FREE N	0 P.E.	TOTAL AIR	
1 10.70 0.	0.	0.30E 00	0.	0.	0.	1.04E 00	1.01E-03	1.04E 02	2.04E-01	1.77E 02
2 10.40 0.	0.	7.40E 00	0.	0.	0.	1.04E 00	0.14E-03	1.30E 00	2.02E-01	1.09E 01
3 10.50 0.	0.	7.40E 00	0.	0.	0.	1.04E 00	0.37E-03	1.39E 00	2.03E-01	1.09E 01
4 10.40 0.	0.	0.94E 00	0.	0.	0.	1.04E 00	0.37E-03	1.39E 00	2.03E-01	1.09E 01
5 10.30 0.	0.	5.94E 00	0.	0.	0.	1.09E 00	0.14E-03	1.30E 00	2.01E-01	0.43E 00
6 10.20 0.	0.	4.09E 00	0.	0.	0.	1.09E 00	0.14E-03	1.30E 00	2.01E-01	0.43E 00
7 10.10 0.	0.	5.63E 00	0.	0.	0.	1.09E 00	0.14E-03	1.30E 00	2.01E-01	0.43E 00
8 10.00 0.	0.	4.82E 00	0.	0.	0.	1.09E 00	0.14E-03	1.30E 00	2.01E-01	0.43E 00
9 9.90 0.	0.	4.02E 00	0.	0.	0.	1.04E 00	0.01E-03	1.37E 00	2.70E-01	0.43E 00
10 9.80 0.	0.	4.04E 00	0.	0.	0.	1.04E 00	0.01E-03	1.37E 00	2.70E-01	0.43E 00
11 9.70 0.	0.	3.03E 00	0.	0.	0.	1.04E 00	0.01E-03	1.30E 00	2.74E-01	7.60E 00
12 9.60 0.	0.	4.12E 00	0.	0.	0.	1.07E 00	0.13E-02	1.30E 00	2.75E-01	7.60E 00
13 9.50 0.	0.	3.44E 00	0.	0.	0.	1.07E 00	0.13E-02	1.30E 00	2.75E-01	6.90E 00
14 9.40 0.	0.	3.19E 00	0.	0.	0.	1.00E 00	0.11E-02	1.39E 00	2.70E-01	0.70E 00
15 9.30 0.	0.	3.25E 00	0.	0.	0.	1.04E 00	0.12E-02	1.30E 00	2.73E-01	0.61E 00
16 9.20 0.	0.	2.61E 00	0.	0.	0.	1.00E 00	0.12E-02	1.40E 00	2.72E-01	0.10E 00
17 9.10 0.	0.	2.67E 00	0.	0.	0.	1.00E 00	0.12E-02	1.40E 00	2.72E-01	0.10E 00
18 9.00 0.	0.	2.30E 00	0.	0.	0.	1.00E 00	0.13E-02	1.40E 00	2.71E-01	5.31E 00
19 8.90 0.	0.	2.16E 00	0.	0.	0.	1.01E 00	0.13E-02	1.40E 00	2.70E-01	4.80E 00
20 8.80 0.	0.	2.10E 00	0.	0.	0.	1.07E 00	0.14E-02	1.40E 00	2.69E-01	4.79E 00
21 8.70 0.	0.	1.70E 00	0.	0.	0.	1.02E 00	0.14E-02	1.40E 00	2.60E-01	4.40E 00
22 8.60 0.	0.	1.02E 00	0.	0.	0.	1.02E 00	0.13E-02	1.40E 00	2.60E-01	4.40E 00
23 8.50 0.	0.	1.89E 00	0.	0.	0.	1.04E 00	0.13E-02	1.40E 00	2.60E-01	4.40E 00
24 8.40 0.	0.	1.53E 00	0.	0.	0.	1.04E 00	0.14E-02	1.40E 00	2.60E-01	4.40E 00
25 8.30 0.	0.	1.27E 00	0.	0.	0.	1.04E 00	0.14E-02	1.40E 00	2.60E-01	4.40E 00
26 8.20 0.	0.	1.27E 00	0.	0.	0.	1.07E 00	0.14E-02	1.40E 00	2.60E-01	4.40E 00
27 8.10 0.	0.	1.37E 00	0.	0.	0.	1.04E 00	0.13E-02	1.40E 00	2.60E-01	4.40E 00
28 8.00 0.	0.	1.07E 00	0.	0.	0.	1.04E 00	0.13E-02	1.40E 00	2.60E-01	4.40E 00
29 7.90 0.	0.	0.90E 00	0.	0.	0.	2.00E 00	0.13E-02	1.40E 00	2.71E-01	3.04E 00
30 7.80 0.	0.	0.10E 00	0.	0.	0.	2.01E 00	0.13E-02	1.40E 00	2.71E-01	3.04E 00
31 7.70 0.	0.	7.60E 00	0.	0.	0.	2.02E 00	0.13E-02	1.40E 00	2.72E-01	3.04E 00
32 7.60 0.	0.	7.37E 00	0.	0.	0.	2.03E 00	0.13E-02	1.40E 00	2.72E-01	3.04E 00
33 7.50 0.	0.	6.60E 00	0.	0.	0.	2.04E 00	0.13E-02	1.40E 00	2.74E-01	3.53E 00
34 7.40 0.	0.	5.91E 00	0.	0.	0.	2.04E 00	0.13E-02	1.40E 00	2.74E-01	3.53E 00
35 7.30 0.	0.	5.90E 00	0.	0.	0.	2.04E 00	0.13E-02	1.40E 00	2.74E-01	3.53E 00
36 7.20 0.	0.	4.07E 00	0.	0.	0.	2.07E 00	0.13E-02	1.40E 00	2.70E-01	3.30E 00
37 7.10 0.	0.	4.60E 00	0.	0.	0.	2.09E 00	0.13E-02	1.40E 00	2.70E-01	3.30E 00
38 7.00 0.	0.	4.14E 00	0.	0.	0.	2.09E 00	0.13E-02	1.40E 00	2.70E-01	3.30E 00
39 6.90 0.	0.	3.73E 00	0.	0.	0.	2.11E 00	0.13E-02	1.40E 00	2.72E-01	3.56E 00
40 6.80 0.	0.	3.92E 00	0.	0.	0.	2.11E 00	0.13E-02	1.40E 00	2.72E-01	3.56E 00
41 6.70 0.	0.	3.02E 00	0.	0.	0.	2.14E 00	0.13E-02	1.40E 00	2.74E-01	3.53E 00
42 6.60 0.	0.	2.64E 00	0.	0.	0.	2.14E 00	0.13E-02	1.40E 00	2.74E-01	3.53E 00
43 6.50 0.	0.	2.06E 00	0.	0.	0.	2.18E 00	0.13E-02	1.40E 00	2.70E-01	3.04E 00
44 6.40 0.	0.	1.36E 00	0.	0.	0.	2.19E 00	0.13E-02	1.40E 00	2.70E-01	3.04E 00
45 6.30 0.	0.	0.20E 00	0.	0.	0.	2.21E 00	0.13E-02	1.40E 00	2.80E-01	3.58E 00
46 6.20 0.	0.	4.44E 00	0.	0.	0.	2.23E 00	0.13E-02	1.40E 00	2.80E-01	3.58E 00
47 6.10 0.	0.	2.02E 00	0.	0.	0.	2.24E 00	0.13E-02	1.40E 00	2.80E-01	3.58E 00
48 6.00 0.	0.	5.03E 00	0.	0.	0.	2.28E 00	0.13E-02	1.40E 00	2.80E-01	3.58E 00
49 5.90 0.	0.	3.59E 00	0.	0.	0.	2.28E 00	0.13E-02	1.40E 00	2.80E-01	3.58E 00
50 5.80 0.	0.	3.16E 00	0.	0.	0.	2.24E 00	0.13E-02	1.40E 00	2.80E-01	3.58E 00
51 5.70 0.	0.	3.61E 00	0.	0.	0.	2.11E 00	0.13E-02	1.40E 00	2.80E-01	3.58E 00

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 1400. DENSITY (GM/CC) 1.293E-02 (1.0E 01 NORMAL)

PHOTON QZ 5-R ENERGY BANDS	N2 1ST POS.	N2 2ND POS.	N2 1ST WEB.	N2 BETA	N2 GAMMA	N2 VIB-ROT	N2 NO	N2 2	Q- PHOTO-DET	Q- PHOTO-DET (T-MS)	N P.E.	N P.E.	TOTAL AID		
52	5.50	1.08E-10	0.	0.	2.96E-12	1.94E-01	0.	0.	1.96E	00	5.97E-02	5.31E-01	3.18E-C1	3.09F	00
53	5.50	0.	0.	0.	3.41E-12	1.01E-01	0.	0.	1.97E	00	5.82E-02	5.41E-01	3.22E-01	3.11F	00
54	5.50	0.	0.	0.	3.23E-12	1.39E-01	0.	0.	1.98E	00	6.22E-02	5.94E-01	3.27E-01	3.18F	00
55	5.53	0.	0.	0.	3.52E-12	1.03E-01	0.	0.	1.99E	00	6.94E-02	5.67E-01	3.32E-01	3.17F	00
56	5.53	0.	0.	0.	3.52E-12	1.27E-01	0.	0.	2.01E	00	6.97E-02	5.80E-01	3.36E-01	3.18E	00
57	5.53	0.	0.	0.	3.49E-12	1.68E-01	0.	0.	2.02E	00	7.30E-02	5.96E-01	3.42E-01	3.24E	00
58	5.50	1.41E-03	0.	0.	3.15E-12	1.52E-01	0.	0.	2.04E	00	7.84E-02	6.14E-01	3.45E-01	3.27E	00
59	4.98	3.52E-04	0.	0.	3.47E-12	1.84E-01	0.	0.	2.06E	00	8.34E-02	6.33E-01	3.50E-01	3.35E	00
60	4.80	6.13E-03	0.	0.	3.70E-12	1.50E-01	0.	0.	2.07E	00	8.87E-02	6.54E-01	3.60E-01	3.38E	00
61	4.73	5.08E-03	0.	0.	3.64E-12	1.34E-01	0.	0.	2.09E	00	9.45E-02	6.75E-01	3.75E-01	3.52E	00
62	4.50	1.09E-02	0.	0.	3.70E-12	1.25E-01	0.	0.	2.11E	00	1.01E-01	7.01E-01	3.85E-01	3.57E	00
63	4.50	1.17E-02	0.	0.	3.32E-12	9.11E-02	0.	0.	2.13E	00	1.09E-01	7.32E-01	3.95E-01	3.52E	00
64	4.40	1.18E-02	0.	0.	3.30E-12	6.39E-02	0.	0.	2.14E	00	1.15E-01	7.64E-01	4.04E-01	3.62E	00
65	4.58	1.09E-02	0.	0.	3.18E-12	3.90E-02	0.	0.	2.18E	00	1.24E-01	7.99E-01	4.15E-01	3.62E	00
66	4.23	1.01E-02	0.	0.	3.29E-12	2.89E-02	0.	0.	2.18E	00	1.33E-01	8.34E-01	4.25E-01	3.48E	00
67	4.13	9.33E-03	0.	0.	3.12E-12	7.71E-03	0.	0.	2.19E	00	1.43E-01	8.69E-01	4.35E-01	4.08E	00
68	4.13	9.48E-03	0.	0.	2.97E-12	5.87E-03	0.	0.	2.19E	00	1.53E-01	9.04E-01	4.45E-01	4.35E	00
69	3.93	7.97E-03	0.	0.	2.45E-12	2.33E-03	0.	0.	2.19E	00	1.64E-01	9.43E-01	4.54E-01	3.93E	00
70	3.89	7.87E-03	0.	0.	2.46E-12	2.86E-02	0.	0.	2.18E	00	1.64E-01	9.43E-01	4.54E-01	4.35E	00
71	3.70	6.47E-03	0.	0.	2.86E-12	0.	0.	0.	2.14E	00	1.95E-01	9.66E-01	4.79E-01	4.19E	00
72	3.60	5.53E-03	0.	0.	6.85E-11	1.95E-01	2.58E-02	0.	2.01E	00	2.12E-01	7.72E-01	1.75E-01	3.97E	30
73	3.50	5.45E-03	0.	0.	6.37E-11	1.98E-02	0.	0.	1.84E	00	2.31E-01	7.71E-01	1.94E-01	4.33E	00
74	3.47	4.90E-03	0.	0.	4.84E-11	5.22E-02	2.18E-02	0.	1.06E	00	2.74E-01	8.62E-01	2.15E-01	2.96E	00
75	3.30	3.97E-03	0.	0.	5.13E-11	1.70E-02	0.	0.	1.06E	00	2.74E-01	8.62E-01	2.15E-01	2.96E	00
76	3.20	3.31E-03	0.	0.	3.23E-11	1.77E-02	0.	0.	1.08E	00					

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)
TEMPERATURE (DEGREES K) 14000. DENSITY (GM/CC) 1.292E-03 (1.0E 00 NORMAL)

PHOTON OR 4-R ENERGY BANDS CM.	OR 3-R CONT.	12 R-M NR. 1	NO DATA	NO DATA	NO DATA	0- PHOTO-DET (ICNS)	REF-FREE P.E.	N	0 P.E.	TOTAL AIR
1 10.70 0.	0.	1.05E-01	0.	0.	0.	5.07E-02	7.41E-04	1.04E-01	2.00E-02	1.00E-01
2 10.66 0.	0.	9.37E-02	0.	0.	0.	5.00E-02	7.03E-04	1.51E-01	2.00E-02	3.32E-01
3 10.59 0.	0.	9.30E-02	0.	0.	0.	5.00E-02	6.90E-04	1.51E-01	2.00E-02	3.32E-01
4 10.40 0.	0.	8.72E-02	0.	0.	0.	5.00E-02	6.30E-04	1.92E-01	2.07E-02	3.27E-01
5 10.38 0.	0.	7.40E-02	0.	0.	0.	5.00E-02	6.34E-04	1.92E-01	2.04E-02	3.19E-01
6 10.20 0.	0.	7.40E-02	0.	0.	0.	5.01E-02	6.00E-04	1.92E-01	2.02E-02	3.17E-01
7 10.10 0.	0.	7.37E-02	0.	0.	0.	5.02E-02	6.00E-04	1.92E-01	2.04E-02	3.12E-01
8 10.00 0.	0.	6.05E-02	0.	0.	0.	5.03E-02	6.00E-04	1.92E-01	2.04E-02	3.02E-01
9 9.90 0.	0.	6.10E-02	0.	0.	0.	5.04E-02	6.02E-04	1.94E-01	2.03E-02	3.04E-01
10 9.80 0.	0.	5.70E-02	0.	0.	0.	5.05E-02	6.02E-04	1.94E-01	2.02E-02	3.01E-01
11 9.70 0.	0.	4.81E-02	0.	0.	0.	5.06E-02	6.02E-04	1.94E-01	2.01E-02	2.91E-01
12 9.60 0.	0.	5.10E-02	0.	0.	0.	5.07E-02	6.00E-04	1.93E-01	2.03E-02	2.93E-01
13 9.50 0.	0.	4.32E-02	0.	0.	0.	5.08E-02	6.00E-04	1.93E-01	2.03E-02	2.97E-01
14 9.40 0.	0.	6.01E-02	0.	0.	0.	5.00E-02	6.12E-04	1.92E-01	2.02E-02	2.87E-01
15 9.30 0.	0.	4.08E-02	0.	0.	0.	6.02E-02	6.10E-04	1.96E-01	2.70E-02	2.80E-01
16 9.20 0.	0.	3.28E-02	0.	0.	0.	6.04E-02	6.10E-04	1.97E-01	2.77E-02	2.79E-01
17 9.10 0.	0.	3.30E-02	0.	0.	0.	6.07E-02	6.10E-04	1.97E-01	2.76E-02	2.76E-01
18 9.00 0.	0.	2.90E-02	0.	0.	0.	6.09E-02	6.10E-04	1.97E-01	2.75E-02	2.75E-01
19 8.90 0.	0.	2.71E-02	0.	0.	0.	6.11E-02	6.10E-04	1.97E-01	2.75E-02	2.75E-01
20 8.80 0.	0.	2.68E-02	0.	0.	0.	6.13E-02	6.10E-04	1.97E-01	2.74E-02	2.74E-01
21 8.70 0.	0.	2.25E-02	0.	0.	0.	6.15E-02	6.10E-04	1.97E-01	2.73E-02	2.73E-01
22 8.60 0.	0.	2.29E-02	0.	0.	0.	6.17E-02	6.10E-04	1.97E-01	2.72E-02	2.72E-01
23 8.50 0.	0.	1.95E-02	0.	0.	0.	6.20E-02	6.10E-04	1.97E-01	2.72E-02	2.72E-01
24 8.40 0.	0.	1.92E-02	0.	0.	0.	6.23E-02	6.10E-04	1.97E-01	2.71E-02	2.71E-01
25 8.30 0.	0.	1.59E-02	0.	0.	0.	6.26E-02	6.10E-04	1.97E-01	2.71E-02	2.71E-01
26 8.20 0.	0.	1.59E-02	0.	0.	0.	6.29E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
27 8.10 0.	0.	1.34E-02	0.	0.	0.	6.33E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
28 8.00 0.	0.	1.34E-02	0.	0.	0.	6.36E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
29 7.90 0.	0.	1.15E-02	0.	0.	0.	6.39E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
30 7.80 0.	0.	1.15E-02	0.	0.	0.	6.42E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
31 7.70 0.	0.	9.90E-03	0.	0.	0.	6.46E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
32 7.60 0.	0.	9.25E-03	0.	0.	0.	6.49E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
33 7.50 0.	0.	6.40E-03	0.	0.	0.	6.52E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
34 7.40 0.	0.	7.42E-03	0.	0.	0.	6.56E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
35 7.30 0.	0.	6.92E-03	0.	0.	0.	6.60E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
36 7.20 0.	0.	6.12E-03	0.	0.	0.	6.63E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
37 7.10 0.	0.	5.70E-03	0.	0.	0.	6.66E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
38 7.00 0.	0.	5.21E-03	0.	0.	0.	6.70E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
39 6.90 0.	0.	4.69E-03	0.	0.	0.	6.74E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
40 6.80 0.	0.	4.42E-03	0.	0.	0.	6.78E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
41 6.70 0.	0.	3.80E-03	0.	0.	0.	6.82E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
42 6.60 0.	0.	3.35E-03	0.	0.	0.	6.86E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
43 6.50 0.	0.	2.59E-03	0.	0.	0.	6.90E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
44 6.40 0.	0.	2.44E-03	0.	0.	0.	6.94E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
45 6.30 0.	0.	1.94E-03	0.	0.	0.	6.98E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
46 6.20 0.	0.	5.57E-04	0.	0.	0.	7.02E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
47 6.10 0.	0.	2.50E-04	0.	0.	0.	7.06E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
48 6.00 0.	0.	1.15E-04	0.	0.	0.	7.10E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
49 5.90 0.	0.	2.67E-05	0.	0.	0.	7.14E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
50 5.80 0.	0.	3.40E-10	0.	0.	0.	7.18E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01
51 5.70 0.	0.	2.50E-11	0.	0.	0.	7.22E-02	6.10E-04	1.97E-01	2.70E-02	2.70E-01

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-04 (1.0E-01 NORMAL)		O- PHOTO-CET (1/MS)		M P.E.		O P.E.		TOTAL AIR	
PHOTON O2 5-R	N2	1ST POS.	2ND POS.	1ST NEG.	N2	BETA	GAMMA	NU	VIB-ROT	NO	2	NU	VIB-ROT
52	5.60	1.02E-14	0.	0.	0.	3.00E-06	1.66E-05	0.	0.	0.	0.	0.	0.
53	5.50	0.	0.	0.	0.	3.66E-06	1.63E-05	0.	0.	0.	0.	0.	0.
54	5.40	0.	0.	0.	0.	3.27E-06	1.41E-05	0.	0.	0.	0.	0.	0.
55	5.30	0.	0.	0.	0.	3.66E-06	1.41E-05	0.	0.	0.	0.	0.	0.
56	5.20	0.	0.	0.	0.	3.37E-06	1.29E-05	0.	0.	0.	0.	0.	0.
57	5.10	0.	0.	0.	0.	3.53E-06	1.48E-05	0.	0.	0.	0.	0.	0.
58	5.00	1.33E-07	0.	0.	0.	3.19E-06	1.46E-05	0.	0.	0.	0.	0.	0.
59	4.90	3.15E-07	0.	0.	0.	3.32E-06	1.53E-05	0.	0.	0.	0.	0.	0.
60	4.80	9.77E-07	0.	0.	0.	3.75E-06	1.52E-05	0.	0.	0.	0.	0.	0.
61	4.70	7.60E-07	0.	0.	0.	3.19E-06	1.46E-05	0.	0.	0.	0.	0.	0.
62	4.60	1.02E-06	0.	0.	0.	3.35E-06	1.44E-05	0.	0.	0.	0.	0.	0.
63	4.50	1.56E-06	0.	0.	0.	3.35E-06	9.23E-06	0.	0.	0.	0.	0.	0.
64	4.40	1.11E-06	0.	0.	0.	3.35E-06	6.42E-06	0.	0.	0.	0.	0.	0.
65	4.30	1.03E-06	0.	0.	0.	3.14E-06	3.95E-06	0.	0.	0.	0.	0.	0.
66	4.20	9.49E-07	0.	0.	0.	3.29E-06	2.84E-06	0.	0.	0.	0.	0.	0.
67	4.10	8.70E-07	0.	0.	0.	3.16E-06	2.81E-07	0.	0.	0.	0.	0.	0.
68	4.00	7.98E-07	0.	0.	0.	3.01E-06	2.95E-07	0.	0.	0.	0.	0.	0.
69	3.90	5.45E-07	0.	0.	0.	3.53E-06	2.27E-05	0.	0.	0.	0.	0.	0.
70	3.80	7.24E-07	0.	0.	0.	9.22E-05	1.13E-04	0.	0.	0.	0.	0.	0.
71	3.70	6.27E-07	0.	0.	0.	1.03E-04	3.87E-05	0.	0.	0.	0.	0.	0.
72	3.60	5.58E-07	0.	0.	0.	6.61E-05	2.23E-04	0.	0.	0.	0.	0.	0.
73	3.50	5.13E-07	0.	0.	0.	9.14E-05	5.03E-04	0.	0.	0.	0.	0.	0.
74	3.40	4.61E-07	0.	0.	0.	3.10E-05	5.98E-05	0.	0.	0.	0.	0.	0.
75	3.30	3.65E-07	0.	0.	0.	5.60E-05	2.61E-04	0.	0.	0.	0.	0.	0.
76	3.20	3.11E-07	0.	0.	0.	3.52E-05	5.92E-04	0.	0.	0.	0.	0.	0.
77	3.10	2.93E-07	0.	0.	0.	2.71E-05	9.40E-05	0.	0.	0.	0.	0.	0.
78	3.00	2.58E-07	0.	0.	0.	1.62E-05	2.53E-04	0.	0.	0.	0.	0.	0.
79	2.90	2.12E-07	0.	0.	0.	9.95E-06	1.46E-04	0.	0.	0.	0.	0.	0.
80	2.80	2.18E-07	0.	0.	0.	4.77E-06	7.92E-05	0.	0.	0.	0.	0.	0.
81	2.70	1.38E-07	0.	0.	0.	2.21E-06	1.22E-04	0.	0.	0.	0.	0.	0.
82	2.60	6.18E-08	0.	0.	0.	1.10E-06	1.17E-05	0.	0.	0.	0.	0.	0.
83	2.50	4.27E-09	0.	0.	0.	1.24E-07	1.07E-05	0.	0.	0.	0.	0.	0.
84	2.40	0.	0.	0.	0.	6.17E-06	9.62E-06	0.	0.	0.	0.	0.	0.
85	2.30	0.	0.	0.	0.	2.14E-25	0.	0.	0.	0.	0.	0.	0.
86	2.20	0.	0.	0.	0.	5.24E-05	0.	0.	0.	0.	0.	0.	0.
87	2.10	0.	0.	0.	0.	6.82E-05	0.	0.	0.	0.	0.	0.	0.
88	2.00	0.	0.	0.	0.	1.13E-04	0.	0.	0.	0.	0.	0.	0.
89	1.90	0.	0.	0.	0.	1.03E-04	0.	0.	0.	0.	0.	0.	0.
90	1.80	0.	0.	0.	0.	1.35E-04	0.	0.	0.	0.	0.	0.	0.
91	1.70	0.	0.	0.	0.	1.89E-04	0.	0.	0.	0.	0.	0.	0.
92	1.60	0.	0.	0.	0.	1.14E-04	0.	0.	0.	0.	0.	0.	0.
93	1.50	0.	0.	0.	0.	1.37E-04	0.	0.	0.	0.	0.	0.	0.
94	1.40	0.	0.	0.	0.	1.37E-04	0.	0.	0.	0.	0.	0.	0.
95	1.30	0.	0.	0.	0.	1.85E-04	0.	0.	0.	0.	0.	0.	0.
96	1.20	0.	0.	0.	0.	1.01E-04	0.	0.	0.	0.	0.	0.	0.
97	1.10	0.	0.	0.	0.	9.25E-05	0.	0.	0.	0.	0.	0.	0.
98	1.00	0.	0.	0.	0.	8.48E-05	0.	0.	0.	0.	0.	0.	0.
99	0.90	0.	0.	0.	0.	8.96E-05	0.	0.	0.	0.	0.	0.	0.
100	0.80	0.	0.	0.	0.	3.20E-05	0.	0.	0.	0.	0.	0.	0.
101	0.70	0.	0.	0.	0.	8.01E-06	0.	0.	0.	0.	0.	0.	0.
102	0.60	0.	0.	0.	0.	1.85E-06	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.072E-09 (10.0E-03 NORMAL)		P.0.		P.0.		TOTAL AIR	
PHOTON OR S-B ENERGY BANDS E.V.	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9	NO. 10	NO. 11
1 10.7E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2 10.6E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3 10.5E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4 10.4E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5 10.3E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6 10.2E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7 10.1E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8 10.0E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9 9.9E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10 9.8E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11 9.7E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12 9.6E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13 9.5E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14 9.4E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15 9.3E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16 9.2E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17 9.1E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18 9.0E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19 8.9E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20 8.8E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21 8.7E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22 8.6E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23 8.5E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24 8.4E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25 8.3E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26 8.2E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27 8.1E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28 8.0E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29 7.9E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30 7.8E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31 7.7E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32 7.6E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33 7.5E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34 7.4E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35 7.3E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36 7.2E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37 7.1E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38 7.0E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39 6.9E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40 6.8E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41 6.7E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42 6.6E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43 6.5E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44 6.4E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45 6.3E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46 6.2E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47 6.1E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48 6.0E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49 5.9E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50 5.8E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51 5.7E 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

[illegible]

ADSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 1.000.		MOISTURE (CM/CM) 1.000-00 (10.00-00 NORMAL)		P.S.		P.S.		P.S.		P.S.	
PHOTON U.S. S-R	OR S-R	OR S-R	OR S-R	OR S-R	OR S-R	OR S-R	OR S-R	OR S-R	OR S-R	OR S-R	OR S-R
ENERGY WAVELENGTH	CM.	CM.	CM.	CM.	CM.	CM.	CM.	CM.	CM.	CM.	CM.
E.V.	CM.	CM.	CM.	CM.	CM.	CM.	CM.	CM.	CM.	CM.	CM.
1 10.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2 10.68 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3 10.58 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4 10.48 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5 10.38 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6 10.28 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7 10.18 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8 10.08 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9 9.98 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10 9.88 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11 9.78 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12 9.68 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13 9.58 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14 9.48 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15 9.38 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16 9.28 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17 9.18 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18 9.08 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19 8.98 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20 8.88 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21 8.78 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22 8.68 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23 8.58 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24 8.48 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25 8.38 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26 8.28 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27 8.18 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28 8.08 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29 7.98 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30 7.88 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31 7.78 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32 7.68 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33 7.58 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34 7.48 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35 7.38 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36 7.28 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37 7.18 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38 7.08 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39 6.98 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40 6.88 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41 6.78 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42 6.68 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43 6.58 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44 6.48 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45 6.38 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46 6.28 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47 6.18 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48 6.08 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49 5.98 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50 5.88 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51 5.78 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON OR S-R ENERGY BANDS		1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	BETA	NO GAMMA	NO V:0-ROT	NO 2	D- PHOTO-DET (TMS)	D- FREQ-FREE	N P.E.	O TOTAL AIR
52	5.60	2.19E-10	0.	0.	0.	4.84E-11	3.17E-10	0.	0.	5.07E-07	1.79E-06	1.93E-05	1.43E-05
53	5.50	0.	0.	0.	0.	5.91E-11	2.96E-10	0.	0.	5.10E-07	1.80E-06	1.97E-05	1.45E-05
54	5.40	0.	0.	0.	0.	5.58E-11	2.27E-10	0.	0.	5.18E-07	2.03E-06	2.03E-05	1.47E-05
55	5.30	0.	0.	0.	0.	5.42E-11	2.99E-10	0.	0.	5.10E-07	2.11E-06	2.08E-05	1.48E-05
56	5.20	0.	0.	0.	0.	5.76E-11	2.09E-10	0.	0.	5.19E-07	2.24E-06	2.11E-05	1.52E-05
57	5.10	0.	0.	0.	0.	5.71E-11	2.72E-10	0.	0.	5.24E-07	2.39E-06	2.17E-05	1.55E-05
58	5.00	0.	0.	0.	0.	5.16E-11	2.48E-10	0.	0.	5.20E-07	2.52E-06	2.35E-05	1.58E-05
59	4.90	0.	0.	0.	0.	5.40E-11	2.46E-10	0.	0.	5.39E-07	2.69E-06	2.39E-05	1.61E-05
60	4.80	0.	0.	0.	0.	5.82E-11	2.45E-10	0.	0.	5.37E-07	2.85E-06	2.38E-05	1.65E-05
61	4.70	0.	0.	0.	0.	5.95E-11	2.19E-10	0.	0.	5.41E-07	3.04E-06	2.48E-05	1.69E-05
62	4.60	0.	0.	0.	0.	6.59E-11	2.03E-10	0.	0.	5.48E-07	3.24E-06	2.59E-05	1.73E-05
63	4.50	0.	0.	0.	0.	5.44E-11	1.49E-10	0.	0.	5.50E-07	3.47E-06	2.68E-05	1.78E-05
64	4.40	0.	0.	0.	0.	5.41E-11	1.59E-10	0.	0.	5.50E-07	3.71E-06	2.78E-05	1.82E-05
65	4.30	0.	0.	0.	0.	5.07E-11	6.37E-11	0.	0.	5.59E-07	3.90E-06	2.91E-05	1.87E-05
66	4.20	0.	0.	0.	0.	5.15E-11	4.48E-11	0.	0.	5.68E-07	4.27E-06	3.03E-05	1.92E-05
67	4.10	0.	0.	0.	0.	5.10E-11	1.40E-11	0.	0.	5.68E-07	4.59E-06	3.18E-05	1.97E-05
68	4.00	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	4.99E-06	3.34E-05	2.02E-05
69	3.90	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	5.34E-06	3.50E-05	2.07E-05
70	3.80	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	5.74E-06	3.66E-05	2.12E-05
71	3.70	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	6.19E-06	3.82E-05	2.17E-05
72	3.60	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	6.69E-06	3.98E-05	2.22E-05
73	3.50	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	7.24E-06	4.14E-05	2.27E-05
74	3.40	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	7.84E-06	4.30E-05	2.32E-05
75	3.30	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	8.49E-06	4.46E-05	2.37E-05
76	3.20	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	9.19E-06	4.62E-05	2.42E-05
77	3.10	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	9.94E-06	4.78E-05	2.47E-05
78	3.00	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	1.074E-05	4.94E-05	2.52E-05
79	2.90	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	1.169E-05	5.10E-05	2.57E-05
80	2.80	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	1.279E-05	5.26E-05	2.62E-05
81	2.70	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	1.404E-05	5.42E-05	2.67E-05
82	2.60	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	1.544E-05	5.58E-05	2.72E-05
83	2.50	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	1.700E-05	5.74E-05	2.77E-05
84	2.40	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	1.874E-05	5.90E-05	2.82E-05
85	2.30	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	2.068E-05	6.06E-05	2.87E-05
86	2.20	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	2.284E-05	6.22E-05	2.92E-05
87	2.10	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	2.524E-05	6.38E-05	2.97E-05
88	2.00	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	2.790E-05	6.54E-05	3.02E-05
89	1.90	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	3.084E-05	6.70E-05	3.07E-05
90	1.80	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	3.408E-05	6.86E-05	3.12E-05
91	1.70	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	3.764E-05	7.02E-05	3.17E-05
92	1.60	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	4.154E-05	7.18E-05	3.22E-05
93	1.50	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	4.580E-05	7.34E-05	3.27E-05
94	1.40	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	5.044E-05	7.50E-05	3.32E-05
95	1.30	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	5.548E-05	7.66E-05	3.37E-05
96	1.20	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	6.094E-05	7.82E-05	3.42E-05
97	1.10	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	6.684E-05	7.98E-05	3.47E-05
98	1.00	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	7.320E-05	8.14E-05	3.52E-05
99	0.90	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	8.004E-05	8.30E-05	3.57E-05
100	0.80	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	8.740E-05	8.46E-05	3.62E-05
101	0.70	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	9.530E-05	8.62E-05	3.67E-05
102	0.60	0.	0.	0.	0.	4.86E-11	9.61E-12	0.	0.	5.68E-07	1.038E-04	8.78E-05	3.72E-05

PHOTON OF 3-R ENERGY BANDS E.V.	3-R CONT.	ME 3-R NO. 1	NO DETA	NO SAMMA	NO 2	0- PHOTO-SET (IONS)	0- FREQ.-OF-REV P.E.	H P.E.	0 P.E.	TOTAL 210
1 10.78 0	0	3 078-12	0	0	0	1.475-00	4.975-00	9.536-07	2.025-07	1.225-00
2 10.65 3	0	3 548-17	0	3	0	1.575-00	5.115-00	9.731-07	2.025-07	1.225-00
3 10.50 0	0	3 508-12	0	0	0	1.475-00	5.245-00	9.531-07	2.025-07	1.225-00
4 10.45 0	0	3 318-12	0	0	0	1.405-00	5.045-00	9.331-07	2.015-07	1.225-00
5 10.20 0	0	2 870-12	0	0	0	1.405-00	5.575-00	9.531-07	2.005-07	1.225-00
6 10.20 0	0	2 805-12	0	0	0	1.405-00	5.745-00	9.531-07	2.705-07	1.225-00
7 10.20 0	0	2 072-12	0	0	0	1.405-00	5.915-00	9.531-07	2.705-07	1.225-00
8 10.00 0	0	2 545-17	0	0	0	1.305-00	5.745-00	9.531-07	2.705-07	1.225-00
9 9.80 0	0	2 545-12	0	0	0	1.405-00	6.205-00	9.531-07	2.775-07	1.225-00
10 9.80 0	0	2 130-12	0	0	0	1.405-00	6.475-00	9.531-07	2.745-07	1.225-00
11 9.70 0	0	1 035-12	0	0	0	1.405-00	6.605-00	9.531-07	2.735-07	1.225-00
12 9.50 0	0	1 035-12	0	0	0	1.505-00	6.405-00	9.531-07	2.735-07	1.243-00
13 9.50 0	0	1 035-12	0	0	0	1.505-00	7.115-00	9.531-07	2.745-07	1.245-00
14 9.40 0	0	1 075-17	0	0	0	1.505-00	7.345-00	9.531-07	2.735-07	1.545-00
15 9.30 0	0	1 045-12	0	0	0	1.515-00	7.505-00	9.531-07	2.725-07	1.545-00
16 9.25 0	0	1 265-12	0	0	0	1.515-00	7.835-00	9.531-07	2.715-07	1.515-07
17 9.10 0	0	1 275-12	0	0	0	1.525-00	8.045-00	9.531-07	2.715-07	1.515-07
18 9.10 0	0	1 135-12	0	0	0	1.535-00	8.145-00	9.531-07	2.705-07	1.505-07
19 9.00 0	0	1 035-12	0	0	0	1.535-00	8.635-00	9.531-07	2.695-07	1.505-07
20 9.00 0	0	9 005-17	0	0	0	1.545-00	8.755-00	9.531-07	2.685-07	1.505-07
21 8.70 0	0	0 455-13	0	0	0	1.545-00	8.245-00	9.531-07	2.605-07	1.505-07
22 8.60 0	0	0 635-13	0	0	0	1.545-00	8.955-00	9.531-07	2.675-07	1.505-07
23 8.50 0	0	7 305-13	0	0	0	1.545-00	9.505-00	9.531-07	2.665-07	1.505-07
24 8.40 0	0	7 375-13	0	0	0	1.545-00	1.035-00	9.531-07	2.665-07	1.505-07
25 8.30 0	0	0 825-13	0	0	0	1.575-00	1.075-00	9.531-07	2.665-07	1.505-07
26 8.20 0	0	6 835-13	0	0	0	1.505-00	1.115-00	9.531-07	2.675-07	1.515-07
27 8.10 0	0	5 835-13	0	0	0	1.505-00	1.135-00	9.531-07	2.675-07	1.515-07
28 8.00 0	0	5 835-13	0	0	0	1.505-00	1.155-00	9.531-07	2.675-07	1.515-07
29 8.00 0	0	5 835-13	0	0	0	1.505-00	1.155-00	9.531-07	2.675-07	1.515-07
30 8.00 0	0	5 835-13	0	0	0	1.505-00	1.155-00	9.531-07	2.675-07	1.515-07
31 7.70 0	0	3 595-13	0	0	0	1.615-00	1.245-00	9.531-07	2.715-07	1.605-07
32 7.60 0	0	4 205-13	0	0	0	1.615-00	1.245-00	9.531-07	2.715-07	1.605-07
33 7.										

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (INVERSE M)		DENSITY (GM/CC)		(1.00-05 NORMAL)		PHOTO-DETECT (1000)		P.E.		TOTAL AIR	
PHOTON OR S-R	OS S-R	OS S-R	OS S-R	OS S-R	OS S-R	OS S-R	OS S-R	OS S-R	OS S-R	OS S-R	OS S-R
ENERGY BANDS	CONT.	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9	NO. 10
E.V.											
1 10.76 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2 10.64 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3 10.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4 10.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5 10.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6 10.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7 10.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8 10.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9 9.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10 9.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11 9.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12 9.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13 9.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14 9.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15 9.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16 9.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17 9.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18 9.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19 8.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20 8.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21 8.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22 8.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23 8.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24 8.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25 8.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26 8.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27 8.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28 8.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29 7.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30 7.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31 7.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32 7.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33 7.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34 7.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35 7.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36 7.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37 7.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38 7.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39 6.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40 6.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41 6.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42 6.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43 6.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44 6.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45 6.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46 6.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47 6.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48 6.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49 5.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50 5.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51 5.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.2036-00 (1.0E-05 NORMAL)		0		P.E.		TOTAL AIP	
PHOTON 02 S-R	ENERGY	1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	NO	NO	NO	NO	NO	NO
PHOTON 02 S-R	ENERGY	1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	NO	NO	NO	NO	NO	NO
52	5.60	1.45E-26	0.	0.	0.	2.64E-18	1.73E-17	0.	0.	1.94E-12	3.09E-10
53	5.50	0.	0.	0.	0.	3.21E-18	1.62E-17	0.	0.	1.93E-12	4.17E-10
54	5.40	0.	0.	0.	0.	2.78E-18	1.24E-17	0.	0.	1.90E-12	4.17E-10
55	5.30	0.	0.	0.	0.	2.96E-18	1.64E-17	0.	0.	1.97E-12	4.07E-10
56	5.20	0.	0.	0.	0.	3.15E-18	1.33E-17	0.	0.	1.98E-12	4.09E-10
57	5.10	0.	0.	0.	0.	3.12E-18	1.46E-17	0.	0.	2.00E-12	5.24E-10
58	5.00	1.89E-19	0.	0.	0.	2.82E-18	1.35E-17	0.	0.	2.08E-12	5.56E-10
59	4.90	4.49E-19	0.	0.	0.	3.10E-18	1.34E-17	0.	0.	2.08E-12	5.56E-10
60	4.80	8.29E-19	0.	0.	0.	3.30E-18	1.34E-17	0.	0.	2.08E-12	5.56E-10
61	4.70	1.08E-18	0.	0.	0.	3.31E-18	1.09E-17	0.	0.	2.07E-12	6.70E-10
62	4.60	1.40E-18	0.	0.	0.	3.31E-18	1.09E-17	0.	0.	2.07E-12	7.15E-10
63	4.50	1.51E-18	0.	0.	0.	2.97E-18	8.14E-18	0.	0.	2.10E-12	7.15E-10
64	4.40	1.59E-18	0.	0.	0.	2.97E-18	5.71E-18	0.	0.	2.12E-12	8.14E-18
65	4.30	1.47E-18	0.	0.	0.	2.77E-18	3.48E-18	0.	0.	2.13E-12	8.14E-18
66	4.20	1.35E-18	0.	0.	0.	2.77E-18	2.59E-18	0.	0.	2.13E-12	8.14E-18
67	4.10	1.23E-18	0.	0.	0.	2.79E-18	8.89E-19	0.	0.	2.14E-12	1.01E-09
68	4.00	1.14E-18	0.	0.	0.	2.63E-18	5.29E-19	0.	0.	2.17E-12	1.01E-09
69	3.90	9.48E-19	0.	0.	0.	2.35E-17	3.34E-14	0.	0.	2.14E-12	1.01E-09
70	3.80	1.03E-18	0.	0.	0.	5.03E-17	6.92E-14	0.	0.	2.15E-12	1.37E-09
71	3.70	9.35E-19	0.	0.	0.	5.61E-17	2.30E-14	0.	0.	2.18E-12	1.37E-09
72	3.60	7.75E-19	0.	0.	0.	4.61E-17	3.06E-13	0.	0.	1.98E-12	1.63E-09
73	3.50	7.00E-19	0.	0.	0.	4.99E-17	3.07E-13	0.	0.	1.81E-12	1.63E-09
74	3.40	6.46E-19	0.	0.	0.	2.93E-17	3.65E-14	0.	0.	1.09E-12	1.74E-09
75	3.30	5.19E-19	0.	0.	0.	3.26E-17	5.96E-14	0.	0.	1.09E-12	1.74E-09
76	3.20	4.43E-19	0.	0.	0.	1.92E-17	3.06E-13	0.	0.	1.09E-12	2.14E-09
77	3.10	4.18E-19	0.	0.	0.	1.46E-17	5.23E-14	0.	0.	1.05E-12	2.14E-09
78	3.00	3.77E-19	0.	0.	0.	8.86E-18	1.35E-14	0.	0.	1.05E-12	2.14E-09
79	2.90	3.07E-19	0.	0.	0.	5.43E-18	8.93E-14	0.	0.	1.00E-12	2.80E-09
80	2.80	2.10E-19	0.	0.	0.	2.60E-18	4.87E-14	0.	0.	1.00E-12	2.80E-09
81	2.70	1.84E-19	0.	0.	0.	1.21E-18	7.41E-14	0.	0.	1.06E-12	3.59E-09
82	2.60	1.40E-20	0.	0.	0.	6.01E-19	7.14E-15	0.	0.	1.06E-12	4.51E-09
83	2.50	6.08E-21	0.	0.	0.	6.80E-20	6.57E-15	0.	0.	1.06E-12	5.13E-09
84	2.40	0.	0.	0.	0.	3.37E-18	0.	0.	0.	1.06E-12	5.13E-09
85	2.30	0.	0.	0.	0.	1.17E-17	0.	0.	0.	1.06E-12	5.13E-09
86	2.20	0.	0.	0.	0.	2.86E-17	0.	0.	0.	1.06E-12	5.13E-09
87	2.10	0.	0.	0.	0.	3.29E-17	0.	0.	0.	1.06E-12	5.13E-09
88	2.00	0.	0.	0.	0.	1.9E-17	0.	0.	0.	1.01E-12	6.97E-09
89	1.90	0.	0.	0.	0.	4.91E-17	0.	0.	0.	9.70E-13	1.04E-08
90	1.80	0.	0.	0.	0.	7.37E-17	0.	0.	0.	9.27E-13	1.23E-08
91	1.70	0.	0.	0.	0.	9.49E-17	0.	0.	0.	8.74E-13	1.44E-08
92	1.60	0.	0.	0.	0.	6.31E-17	0.	0.	0.	7.39E-13	1.74E-08
93	1.50	0.	0.	0.	0.	7.47E-17	0.	0.	0.	3.38E-13	2.14E-08
94	1.40	0.	0.	0.	0.	5.73E-17	0.	0.	0.	0.	2.64E-08
95	1.30	0.	0.	0.	0.	5.73E-17	0.	0.	0.	0.	3.31E-08
96	1.20	0.	0.	0.	0.	5.55E-17	0.	0.	0.	0.	4.24E-08
97	1.10	0.	0.	0.	0.	5.05E-17	0.	0.	0.	0.	5.55E-08
98	1.00	0.	0.	0.	0.	4.61E-17	0.	0.	0.	0.	5.55E-08
99	0.90	0.	0.	0.	0.	3.80E-17	0.	0.	0.	0.	1.03E-07
100	0.80	0.	0.	0.	0.	4.37E-18	0.	0.	0.	0.	2.21E-07
101	0.70	0.	0.	0.	0.	5.76E-19	0.	0.	0.	0.	1.55E-07
102	0.60	0.	0.	0.	0.	5.76E-19	0.	0.	0.	0.	1.55E-07

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON Q2 S-R		TEMPERATURE (DEGREES K)		DE SITY (GM/CC)		1.203E-09 (1.8E-06 NORMAL)		TOTAL AIR	
ENERGY BANDS	1ST POS.	N2	2ND POS.	1ST NEG.	N2	2ND NEG.	1ST NEG.	N2	2ND NEG.
52	5.60	1.50E-30	0.	0.	2.73E-22	1.78E-21	0.	0.	1.99E-15
53	3.50	0.	0.	0.	3.35E-22	1.65E-21	0.	0.	2.00E-15
54	5.40	0.	0.	0.	2.97E-22	1.28E-21	0.	0.	2.01E-15
55	5.30	0.	0.	0.	3.09E-22	1.69E-21	0.	0.	2.02E-15
56	5.20	0.	0.	0.	3.24E-22	1.17E-21	0.	0.	2.04E-15
57	5.10	0.	0.	0.	3.21E-22	1.53E-21	0.	0.	2.05E-15
58	5.00	1.94E-23	0.	0.	3.20E-22	1.40E-21	0.	0.	2.07E-15
59	4.90	4.64E-23	0.	0.	3.20E-22	1.49E-21	0.	0.	2.09E-15
60	4.80	8.92E-23	0.	0.	3.41E-22	1.38E-21	0.	0.	2.10E-15
61	4.70	1.17E-22	0.	0.	3.35E-22	1.13E-21	0.	0.	2.12E-15
62	4.60	1.51E-22	0.	0.	3.41E-22	1.13E-21	0.	0.	2.14E-15
63	4.50	1.56E-22	0.	0.	3.06E-22	0.39E-22	0.	0.	2.16E-15
64	4.40	1.44E-22	0.	0.	3.06E-22	5.89E-22	0.	0.	2.17E-15
65	4.30	1.52E-22	0.	0.	2.95E-22	3.59E-22	0.	0.	2.19E-15
66	4.20	1.40E-22	0.	0.	2.95E-22	2.63E-22	0.	0.	2.21E-15
67	4.10	1.30E-22	0.	0.	2.87E-22	2.10E-23	0.	0.	2.22E-15
68	4.00	1.18E-22	0.	0.	2.74E-22	5.41E-23	0.	0.	2.23E-15
69	3.90	9.82E-23	0.	0.	3.33E-21	1.41E-17	0.	0.	2.22E-15
70	3.80	1.07E-22	0.	0.	5.18E-21	7.03E-17	0.	0.	2.21E-15
71	3.70	9.24E-23	0.	0.	5.78E-21	2.17E-22	0.	0.	2.17E-15
72	3.60	8.24E-23	0.	0.	3.70E-21	1.39E-22	0.	0.	2.04E-15
73	3.50	7.57E-23	0.	0.	5.12E-21	3.12E-22	0.	0.	1.84E-15
74	3.40	6.90E-23	0.	0.	3.82E-21	3.71E-22	0.	0.	1.07E-15
75	3.30	5.58E-23	0.	0.	3.13E-21	1.62E-16	0.	0.	1.08E-15
76	3.20	4.30E-23	0.	0.	1.97E-21	3.11E-16	0.	0.	1.08E-15
77	3.10	4.33E-23	0.	0.	1.52E-21	5.83E-17	0.	0.	1.08E-15
78	3.00	3.41E-23	0.	0.	9.88E-22	1.57E-16	0.	0.	1.08E-15
79	2.90	3.13E-23	0.	0.	5.97E-22	9.04E-17	0.	0.	1.08E-15
80	2.80	3.22E-23	0.	0.	2.47E-22	4.91E-17	0.	0.	1.09E-15
81	2.70	2.91E-23	0.	0.	1.24E-22	7.54E-17	0.	0.	1.09E-15
82	2.60	9.12E-24	0.	0.	6.16E-23	7.23E-18	0.	0.	1.09E-15
83	2.50	6.10E-25	0.	0.	4.97E-24	6.64E-18	0.	0.	1.09E-15
84	2.40	0.	0.	0.	5.97E-18	3.71E-25	0.	0.	1.08E-15
85	2.30	0.	0.	0.	0.	0.	0.	0.	1.07E-15
86	2.20	0.	0.	0.	0.	0.	0.	0.	1.07E-15
87	2.10	0.	0.	0.	0.	0.	0.	0.	1.03E-15
88	2.00	0.	0.	0.	0.	0.	0.	0.	1.03E-15
89	1.90	0.	0.	0.	0.	0.	0.	0.	9.52E-16
90	1.80	0.	0.	0.	0.	0.	0.	0.	9.52E-16
91	1.70	0.	0.	0.	0.	0.	0.	0.	8.97E-16
92	1.60	0.	0.	0.	0.	0.	0.	0.	7.59E-16
93	1.50	0.	0.	0.	0.	0.	0.	0.	3.45E-16
94	1.40	0.	0.	0.	0.	0.	0.	0.	0.
95	1.30	0.	0.	0.	0.	0.	0.	0.	0.
96	1.20	0.	0.	0.	0.	0.	0.	0.	0.
97	1.10	0.	0.	0.	0.	0.	0.	0.	0.
98	1.00	0.	0.	0.	0.	0.	0.	0.	0.
99	0.90	0.	0.	0.	0.	0.	0.	0.	0.
100	0.80	0.	0.	0.	0.	0.	0.	0.	0.
101	0.70	0.	0.	0.	0.	0.	0.	0.	0.
102	0.60	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES M) 1900. DENSITY (GM/CC) 1.2038-02 (1.0% 01 NORMAL)

PHOTON OR S-R ENERGY RANGE E.V.	02 S-R CONT.	H2 D-H NO. 1	NO DETA	NO SIGMA	NO 2	0- PHOTO-DET (I/MS)	FRES-FREE N	0 P.E.	TOTAL AIR
1 10.70 0.	0.	5.33E 00	0.	0.	0.	2.34E 00	1.02E-02	2.04E 02	5.19E-01
2 10.60 0.	0.	4.71E 00	0.	0.	0.	2.32E 00	1.07E-02	2.59E 00	5.17E-01
3 10.50 0.	0.	4.28E 00	0.	0.	0.	2.35E 00	1.03E-02	2.51E 00	5.14E-01
4 10.40 0.	0.	4.02E 00	0.	0.	0.	2.35E 00	1.00E-02	2.52E 00	5.14E-01
5 10.30 0.	0.	3.81E 00	0.	0.	0.	2.35E 00	2.03E-02	2.53E 00	5.12E-01
6 10.20 0.	0.	3.60E 00	0.	0.	0.	2.30E 00	2.10E-02	2.54E 00	5.11E-01
7 10.10 0.	0.	3.44E 00	0.	0.	0.	2.30E 00	2.10E-02	2.54E 00	5.09E-01
8 10.00 0.	0.	3.21E 00	0.	0.	0.	2.30E 00	2.23E-02	2.59E 00	5.07E-01
9 9.90 0.	0.	2.90E 00	0.	0.	0.	2.37E 00	2.30E-02	2.59E 00	5.04E-01
10 9.80 0.	0.	2.63E 00	0.	0.	0.	2.37E 00	2.44E-02	2.56E 00	5.04E-01
11 9.70 0.	0.	2.32E 00	0.	0.	0.	2.30E 00	2.52E-02	2.57E 00	5.01E-01
12 9.60 0.	0.	2.02E 00	0.	0.	0.	2.30E 00	2.52E-02	2.57E 00	5.01E-01
13 9.50 0.	0.	1.70E 00	0.	0.	0.	2.30E 00	2.68E-02	2.59E 00	4.99E-01
14 9.40 0.	0.	1.39E 00	0.	0.	0.	2.30E 00	2.68E-02	2.59E 00	4.98E-01
15 9.30 0.	0.	1.08E 00	0.	0.	0.	2.40E 00	2.77E-02	2.59E 00	4.96E-01
16 9.20 0.	0.	0.78E 00	0.	0.	0.	2.41E 00	2.87E-02	2.60E 00	4.94E-01
17 9.10 0.	0.	0.48E 00	0.	0.	0.	2.42E 00	2.96E-02	2.67E-01	4.93E-01
18 9.00 0.	0.	0.18E 00	0.	0.	0.	2.43E 00	3.04E-02	2.67E-01	4.91E-01
19 8.90 0.	0.	0.08E 00	0.	0.	0.	2.44E 00	3.17E-02	2.67E-01	4.90E-01
20 8.80 0.	0.	0.00E 00	0.	0.	0.	2.48E 00	3.24E-02	2.67E-01	4.89E-01
21 8.70 0.	0.	1.24E 00	0.	0.	0.	2.49E 00	3.30E-02	2.67E-01	4.87E-01
22 8.60 0.	0.	1.37E 00	0.	0.	0.	2.44E 00	3.51E-02	2.60E-01	4.85E-01
23 8.50 0.	0.	1.10E 00	0.	0.	0.	2.47E 00	3.64E-02	2.60E-01	4.84E-01
24 8.40 0.	0.	0.80E 00	0.	0.	0.	2.43E 00	3.77E-02	2.70E-01	4.83E-01
25 8.30 0.	0.	0.00E-01	0.	0.	0.	2.56E 00	3.91E-02	2.72E-01	4.82E-01
26 8.20 0.	0.	9.10E-01	0.	0.	0.	2.51E 00	4.05E-02	2.74E-01	4.84E-01
27 8.10 0.	0.	7.72E-01	0.	0.	0.	2.52E 00	4.21E-02	2.75E-01	4.84E-01
28 8.00 0.	0.	7.28E-01	0.	0.	0.	2.54E 00	4.37E-02	2.78E-01	4.84E-01
29 7.90 0.	0.	6.95E-01	0.	0.	0.	2.53E 00	4.54E-02	2.81E-01	4.89E-01
30 7.80 0.	0.	6.74E-01	0.	0.	0.	2.54E 00	4.72E-02	2.85E-01	4.91E-01
31 7.70 0.	0.	5.12E-01	0.	0.	0.	2.57E 00	4.90E-02	2.89E-01	4.93E-01
32 7.60 0.	0.	5.17E-01	0.	0.	0.	2.59E 00	5.10E-02	2.93E-01	4.95E-01
33 7.50 0.	0.	5.00E-01	0.	0.	0.	2.60E 00	5.31E-02	2.97E-01	4.96E-01
34 7.40 0.	0.	4.44E-01	0.	0.	0.	2.61E 00	5.53E-02	3.01E-01	4.98E-01
35 7.30 0.	0.	4.10E-01	0.	0.	0.	2.63E 00	5.76E-02	3.05E-01	5.00E-01
36 7.20 0.	0.	3.71E-01	0.	0.	0.	2.64E 00	6.00E-02	3.08E-01	5.02E-01
37 7.10 0.	0.	3.92E-01	0.	0.	0.	2.67E 00	6.26E-02	3.12E-01	5.03E-01
38 7.00 0.	0.	3.10E-01	0.	0.	0.	2.69E 00	6.54E-02	3.16E-01	5.05E-01
39 6.90 0.	0.	2.89E-01	0.	0.	0.	2.71E 00	6.83E-02	3.20E-01	5.07E-01
40 6.80 0.	0.	2.75E-01	0.	0.	0.	2.73E 00	7.13E-02	3.24E-01	5.09E-01
41 6.70 0.	0.	2.37E-01	0.	0.	0.	2.75E 00	7.44E-02	3.28E-01	5.11E-01
42 6.60 0.	0.	2.10E-01	0.	0.	0.	2.77E 00	7.76E-02	3.33E-01	5.14E-01
43 6.50 0.	0.	1.64E-01	0.	0.	0.	2.80E 00	8.10E-02	3.43E-01	5.16E-01
44 6.40 0.	0.	1.15E-01	0.	0.	0.	2.82E 00	8.47E-02	3.52E-01	5.19E-01
45 6.30 0.	0.	6.66E-02	0.	0.	0.	2.84E 00	8.89E-02	3.60E-01	5.23E-01
46 6.20 0.	0.	3.66E-02	0.	0.	0.	2.86E 00	9.31E-02	3.69E-01	5.29E-01
47 6.10 0.	0.	1.69E-02	0.	0.	0.	2.88E 00	9.91E-02	3.79E-01	5.35E-01
48 6.00 0.	0.	4.22E-03	0.	0.	0.	2.90E 00	1.04E-01	3.91E-01	5.41E-01
49 5.90 0.	0.	3.02E-04	0.	0.	0.	2.90E 00	1.10E-01	1.01E 00	5.47E-01
50 5.80 0.	0.	7.57E-04	0.	0.	0.	2.84E 00	1.15E-01	1.02E 00	5.53E-01
51 5.70 0.	0.	0.	0.	0.	0.	2.69E 00	1.22E-01	1.03E 00	5.59E-01

ASSUMPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 15000.		DENSITY (GM/CC) 1.293E-03 (1.0E 00 NORMAL)		O- FREE-FREE N		P.E.		TOTAL AIR	
PHOTON ENERGY BANDS E.V.	OR 3-A	OR 3-B	OR 3-C	NO 1	NO 2	NO 3	NO 4	NO 5	NO 6
PHOTON ENERGY BANDS E.V.	OR 3-A	OR 3-B	OR 3-C	NO 1	NO 2	NO 3	NO 4	NO 5	NO 6
1 10.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2 10.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3 10.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4 10.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5 10.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6 10.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7 10.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8 10.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51 9.99 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)
 TEMPERATURE (DEGREES N) 1500. DENSITY (GM/CC) 1.293E-03 (1.0E-03 NORMAL)

PHOTON ENERGY BANDS	N2 1ST POS.	N2 2ND POS.	N2 1ST NEG.	N2 2ND NEG.	BETA	NO GAMMA	NO VIB-ROT	NO 2	O- PHOTO-DET (1/MS)	W P.E.	Q P.E.	TOTAL AIR
52	5.47 7.75E-15	0.	0.	0.	2.00E-04	1.30E-03	0.	0.	7.80E-02	1.22E-02	1.10E-01	5.60E-02 2.90E-01
53	5.50 0.	0.	0.	0.	2.50E-04	1.20E-03	0.	0.	7.80E-02	1.20E-02	1.10E-01	5.70E-02 2.80E-01
54	5.53 0.	0.	0.	0.	2.20E-04	9.00E-04	0.	0.	7.90E-02	1.30E-02	1.15E-01	5.80E-02 2.80E-01
55	5.59 0.	0.	0.	0.	2.35E-04	1.20E-03	0.	0.	7.90E-02	1.40E-02	1.15E-01	5.80E-02 2.70E-01
56	5.60 0.	0.	0.	0.	2.51E-04	9.10E-04	0.	0.	7.90E-02	1.50E-02	1.20E-01	6.01E-02 2.70E-01
57	5.70 0.	0.	0.	0.	2.40E-04	1.10E-03	0.	0.	8.10E-02	1.40E-02	1.20E-01	6.10E-02 2.60E-01
58	5.70 0.	0.	0.	0.	2.20E-04	1.00E-03	0.	0.	8.10E-02	1.70E-02	1.20E-01	6.10E-02 2.60E-01
59	4.93 2.40E-05	0.	0.	0.	2.50E-04	1.10E-03	0.	0.	8.10E-02	1.80E-02	1.30E-01	6.30E-02 2.60E-01
60	4.83 4.50E-05	0.	0.	0.	2.40E-04	1.00E-03	0.	0.	8.20E-02	1.90E-02	1.30E-01	6.40E-02 2.60E-01
61	4.73 8.01E-05	0.	0.	0.	2.60E-04	9.00E-04	0.	0.	8.30E-02	2.00E-02	1.40E-01	6.60E-02 2.60E-01
62	4.63 8.10E-05	0.	0.	0.	2.60E-04	9.00E-04	0.	0.	8.30E-02	2.10E-02	1.40E-01	6.60E-02 2.60E-01
63	4.50 8.47E-05	0.	0.	0.	2.40E-04	6.70E-04	0.	0.	8.40E-02	2.30E-02	1.50E-01	7.00E-02 3.10E-01
64	4.40 8.30E-05	0.	0.	0.	2.40E-04	6.70E-04	0.	0.	8.40E-02	2.50E-02	1.50E-01	7.10E-02 3.10E-01
65	4.30 8.30E-05	0.	0.	0.	2.20E-04	2.80E-04	0.	0.	8.50E-02	2.70E-02	1.60E-01	7.30E-02 3.10E-01
66	4.20 7.70E-05	0.	0.	0.	2.40E-04	2.80E-04	0.	0.	8.60E-02	2.90E-02	1.70E-01	7.50E-02 3.10E-01
67	4.10 7.10E-05	0.	0.	0.	3.10E-03	0.	0.	0.	8.60E-02	3.10E-02	1.80E-01	7.60E-02 3.10E-01
68	4.00 6.50E-05	0.	0.	0.	1.10E-02	0.	0.	0.	8.70E-02	3.30E-02	1.90E-01	7.80E-02 3.10E-01
69	3.90 5.90E-05	0.	0.	0.	5.00E-03	6.99E-04	0.	0.	8.80E-02	3.50E-02	2.00E-01	8.00E-02 3.10E-01
70	3.80 5.00E-05	0.	0.	0.	8.00E-03	3.12E-03	0.	0.	8.90E-02	3.70E-02	2.10E-01	8.20E-02 3.10E-01
71	3.70 5.20E-05	0.	0.	0.	9.00E-03	1.70E-03	0.	0.	9.00E-02	3.90E-02	2.20E-01	8.40E-02 3.10E-01
72	3.60 4.60E-05	0.	0.	0.	9.00E-03	6.60E-03	0.	0.	9.10E-02	4.10E-02	2.30E-01	8.60E-02 3.10E-01
73	3.50 4.30E-05	0.	0.	0.	7.60E-03	1.40E-02	0.	0.	9.20E-02	4.30E-02	2.40E-01	8.80E-02 3.10E-01
74	3.40 3.90E-05	0.	0.	0.	4.60E-03	1.80E-03	0.	0.	9.30E-02	4.50E-02	2.50E-01	9.00E-02 3.10E-01
75	3.30 3.10E-05	0.	0.	0.	4.60E-03	7.80E-03	0.	0.	9.40E-02	4.70E-02	2.60E-01	9.20E-02 3.10E-01
76	3.20 2.40E-05	0.	0.	0.	3.00E-03	1.30E-03	0.	0.	9.50E-02	4.90E-02	2.70E-01	9.40E-02 3.10E-01
77	3.10 2.50E-05	0.	0.	0.	2.30E-03	2.90E-03	0.	0.	9.60E-02	5.10E-02	2.80E-01	9.60E-02 3.10E-01
78	3.00 2.70E-05	0.	0.	0.	1.40E-03	7.00E-03	0.	0.	9.70E-02	5.30E-02	2.90E-01	9.80E-02 3.10E-01
79	2.90 1.40E-05	0.	0.	0.	9.80E-04	4.30E-03	0.	0.	9.80E-02	5.50E-02	3.00E-01	1.00E-01 3.10E-01
80	2.80 1.90E-05	0.	0.	0.	4.20E-04	2.47E-03	0.	0.	9.90E-02	5.70E-02	3.10E-01	1.02E-01 3.10E-01
81	2.70 1.20E-05	0.	0.	0.	1.90E-04	3.40E-03	0.	0.	1.00E-01	5.90E-02	3.20E-01	1.04E-01 3.10E-01
82	2.60 5.70E-06	0.	0.	0.	9.00E-05	1.50E-03	0.	0.	1.01E-01	6.10E-02	3.30E-01	1.06E-01 3.10E-01
83	2.50 3.40E-07	0.	0.	0.	1.00E-05	1.30E-04	0.	0.	1.02E-01	6.30E-02	3.40E-01	1.08E-01 3.10E-01
84	2.40 0.	5.27E-04	0.	0.	2.80E-04	3.40E-07	0.	0.	1.03E-01	6.50E-02	3.50E-01	1.10E-01 3.10E-01
85	2.30 0.	1.77E-03	0.	0.	0.	0.	0.	0.	1.04E-01	6.70E-02	3.60E-01	1.12E-01 3.10E-01
86	2.20 0.	4.00E-03	0.	0.	0.	0.	0.	0.	1.05E-01	6.90E-02	3.70E-01	1.14E-01 3.10E-01
87	2.10 0.	4.00E-03	0.	0.	0.	0.	0.	0.	1.06E-01	7.10E-02	3.80E-01	1.16E-01 3.10E-01
88	2.00 0.	9.10E-03	0.	0.	0.	0.	0.	0.	1.07E-01	7.30E-02	3.90E-01	1.18E-01 3.10E-01
89	1.90 0.	1.10E-02	0.	0.	0.	0.	0.	0.	1.08E-01	7.50E-02	4.00E-01	1.20E-01 3.10E-01
90	1.80 0.	1.80E-02	0.	0.	0.	0.	0.	0.	1.09E-01	7.70E-02	4.10E-01	1.22E-01 3.10E-01
91	1.70 0.	1.27E-02	0.	0.	0.	0.	0.	0.	1.10E-01	7.90E-02	4.20E-01	1.24E-01 3.10E-01
92	1.60 0.	9.20E-03	0.	0.	0.	0.	0.	0.	1.11E-01	8.10E-02	4.30E-01	1.26E-01 3.10E-01
93	1.50 0.	1.00E-02	0.	0.	0.	0.	0.	0.	1.12E-01	8.30E-02	4.40E-01	1.28E-01 3.10E-01
94	1.40 0.	1.00E-02	0.	0.	0.	0.	0.	0.	1.13E-01	8.50E-02	4.50E-01	1.30E-01 3.10E-01
95	1.30 0.	9.10E-03	0.	0.	0.	0.	0.	0.	1.14E-01	8.70E-02	4.60E-01	1.32E-01 3.10E-01
96	1.20 0.	9.00E-03	0.	0.	0.	0.	0.	0.	1.15E-01	8.90E-02	4.70E-01	1.34E-01 3.10E-01
97	1.10 0.	7.40E-03	0.	0.	0.	0.	0.	0.	1.16E-01	9.10E-02	4.80E-01	1.36E-01 3.10E-01
98	1.00 0.	5.80E-03	0.	0.	0.	0.	0.	0.	1.17E-01	9.30E-02	4.90E-01	1.38E-01 3.10E-01
99	0.90 0.	5.50E-03	0.	0.	0.	0.	0.	0.	1.18E-01	9.50E-02	5.00E-01	1.40E-01 3.10E-01
100	0.80 0.	2.40E-03	0.	0.	0.	0.	0.	0.	1.19E-01	9.70E-02	5.10E-01	1.42E-01 3.10E-01
101	0.70 0.	6.10E-04	0.	0.	0.	0.	0.	0.	1.20E-01	9.90E-02	5.20E-01	1.44E-01 3.10E-01
102	0.60 0.	9.20E-05	0.	0.	0.	0.	0.	0.	1.21E-01	1.00E-01	5.30E-01	1.46E-01 3.10E-01

ASSUMPTION COEFFICIENTS OF HEATED AIR (10/1000 CM.)
TEMPERATURE (DEGREES F) 19000. DENSITY (GM/CC) 1.9228-04 (1.0E-01 NORMAL)

PHOTON RE S-B ENERGY BANDS E.V.	02 S-B CONT.	H2 S-B NO. 1	NO DATA	NO GAMMA	NO Z	0- FUDGE-FACTOR P.S.	H P.S.	0 TOTAL AIR P.S.
1 10.70 0.	0.	4.40E-04	0.	0.	0.	2.00E-03	1.32E-04	1.00E-00
2 10.60 0.	0.	4.32E-04	0.	0.	0.	2.00E-03	1.32E-04	1.00E-03
3 10.50 0.	0.	4.04E-04	0.	0.	0.	2.00E-03	1.32E-04	1.00E-03
4 10.40 0.	0.	3.78E-04	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
5 10.30 0.	0.	3.52E-04	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
6 10.20 0.	0.	3.26E-04	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
7 10.10 0.	0.	3.00E-04	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
8 10.00 0.	0.	2.74E-04	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
9 9.90 0.	0.	2.48E-04	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
10 9.80 0.	0.	2.22E-04	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
11 9.70 0.	0.	1.96E-04	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
12 9.60 0.	0.	1.70E-04	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
13 9.50 0.	0.	1.44E-04	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
14 9.40 0.	0.	1.18E-04	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
15 9.30 0.	0.	9.22E-05	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
16 9.20 0.	0.	6.56E-05	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
17 9.10 0.	0.	3.90E-05	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
18 9.00 0.	0.	1.24E-05	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
19 8.90 0.	0.	6.04E-06	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
20 8.80 0.	0.	3.38E-06	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
21 8.70 0.	0.	7.22E-07	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
22 8.60 0.	0.	1.56E-07	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
23 8.50 0.	0.	3.00E-08	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
24 8.40 0.	0.	5.44E-09	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
25 8.30 0.	0.	7.88E-10	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
26 8.20 0.	0.	1.03E-10	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
27 8.10 0.	0.	1.27E-11	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
28 8.00 0.	0.	1.51E-12	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
29 7.90 0.	0.	1.75E-13	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
30 7.80 0.	0.	2.00E-14	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
31 7.70 0.	0.	2.24E-15	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
32 7.60 0.	0.	2.48E-16	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
33 7.50 0.	0.	2.73E-17	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
34 7.40 0.	0.	2.97E-18	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
35 7.30 0.	0.	3.21E-19	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
36 7.20 0.	0.	3.46E-20	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
37 7.10 0.	0.	3.70E-21	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
38 7.00 0.	0.	3.95E-22	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
39 6.90 0.	0.	4.19E-23	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
40 6.80 0.	0.	4.43E-24	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
41 6.70 0.	0.	4.68E-25	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
42 6.60 0.	0.	4.92E-26	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
43 6.50 0.	0.	5.17E-27	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
44 6.40 0.	0.	5.41E-28	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
45 6.30 0.	0.	5.66E-29	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
46 6.20 0.	0.	5.90E-30	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
47 6.10 0.	0.	6.15E-31	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
48 6.00 0.	0.	6.39E-32	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
49 5.90 0.	0.	6.64E-33	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
50 5.80 0.	0.	6.88E-34	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02
51 5.70 0.	0.	7.13E-35	0.	0.	0.	2.01E-03	1.31E-04	1.00E-02

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 15000.		DENSITY (GM/CC) 1.293E-04 (1.8E-91 NORMAL)		D		P.E.		TOTAL AIR	
PHOTON OR S-R	W2	W2	W2	W2	W2	W2	W2	W2	W2
ENERGY	POS.	2ND POS.	1ST NEG.	BETA	GAMMA	VIB-RQT	NO	NO	NO
52	5.60	6.01E-15	0.	0.	0.	0.	0.	0.	0.
53	5.50	0.	0.	0.	0.	0.	0.	0.	0.
54	5.40	0.	0.	0.	0.	0.	0.	0.	0.
55	5.30	0.	0.	0.	0.	0.	0.	0.	0.
56	5.20	0.	0.	0.	0.	0.	0.	0.	0.
57	5.10	0.	0.	0.	0.	0.	0.	0.	0.
58	5.00	6.95E-08	0.	0.	0.	0.	0.	0.	0.
59	4.90	2.09E-07	0.	0.	0.	0.	0.	0.	0.
60	4.80	3.66E-07	0.	0.	0.	0.	0.	0.	0.
61	4.70	5.12E-07	0.	0.	0.	0.	0.	0.	0.
62	4.60	6.75E-07	0.	0.	0.	0.	0.	0.	0.
63	4.50	7.22E-07	0.	0.	0.	0.	0.	0.	0.
64	4.40	7.62E-07	0.	0.	0.	0.	0.	0.	0.
65	4.30	7.11E-07	0.	0.	0.	0.	0.	0.	0.
66	4.20	6.70E-07	0.	0.	0.	0.	0.	0.	0.
67	4.10	6.12E-07	0.	0.	0.	0.	0.	0.	0.
68	4.00	5.19E-07	0.	0.	0.	0.	0.	0.	0.
69	3.90	4.09E-07	0.	0.	0.	0.	0.	0.	0.
70	3.80	3.11E-07	0.	0.	0.	0.	0.	0.	0.
71	3.70	4.47E-07	0.	0.	0.	0.	0.	0.	0.
72	3.60	4.00E-07	0.	0.	0.	0.	0.	0.	0.
73	3.50	3.69E-07	0.	0.	0.	0.	0.	0.	0.
74	3.40	3.34E-07	0.	0.	0.	0.	0.	0.	0.
75	3.30	2.95E-07	0.	0.	0.	0.	0.	0.	0.
76	3.20	2.28E-07	0.	0.	0.	0.	0.	0.	0.
77	3.10	2.10E-07	0.	0.	0.	0.	0.	0.	0.
78	3.00	1.91E-07	0.	0.	0.	0.	0.	0.	0.
79	2.90	1.59E-07	0.	0.	0.	0.	0.	0.	0.
80	2.80	1.04E-07	0.	0.	0.	0.	0.	0.	0.
81	2.70	1.03E-07	0.	0.	0.	0.	0.	0.	0.
82	2.60	4.75E-08	0.	0.	0.	0.	0.	0.	0.
83	2.50	3.18E-08	0.	0.	0.	0.	0.	0.	0.
84	2.40	0.	4.10E-06	0.	0.	0.	0.	0.	0.
85	2.30	0.	1.37E-05	0.	0.	0.	0.	0.	0.
86	2.20	0.	3.43E-05	0.	0.	0.	0.	0.	0.
87	2.10	0.	3.04E-05	0.	0.	0.	0.	0.	0.
88	2.00	0.	7.29E-05	0.	0.	0.	0.	0.	0.
89	1.90	0.	2.81E-04	0.	0.	0.	0.	0.	0.
90	1.80	0.	6.44E-05	0.	0.	0.	0.	0.	0.
91	1.70	0.	9.07E-05	0.	0.	0.	0.	0.	0.
92	1.60	0.	7.22E-05	0.	0.	0.	0.	0.	0.
93	1.50	0.	6.06E-05	0.	0.	0.	0.	0.	0.
94	1.40	0.	3.48E-05	0.	0.	0.	0.	0.	0.
95	1.30	0.	6.40E-05	0.	0.	0.	0.	0.	0.
96	1.20	0.	4.44E-05	0.	0.	0.	0.	0.	0.
97	1.10	0.	5.77E-05	0.	0.	0.	0.	0.	0.
98	1.00	0.	5.20E-05	0.	0.	0.	0.	0.	0.
99	0.90	0.	4.35E-05	0.	0.	0.	0.	0.	0.
100	0.80	0.	2.95E-05	0.	0.	0.	0.	0.	0.
101	0.70	0.	4.99E-06	0.	0.	0.	0.	0.	0.
102	0.60	0.	1.31E-07	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES N) 15000.		DENSITY (GM/CC) 1.5728-09		150.00-03 NORMAL		P.E.		P.E.	
PHOTON ENERGY E.V.	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9
PHOTON ENERGY E.V.	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9
1 10.70 0.	1.00E-04	0.	0.	0.	0.	0.	0.	0.	0.
2 10.60 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
3 10.50 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
4 10.40 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
5 10.30 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
6 10.20 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
7 10.10 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
8 10.00 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
9 9.90 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
10 9.80 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
11 9.70 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
12 9.60 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
13 9.50 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
14 9.40 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
15 9.30 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
16 9.20 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
17 9.10 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
18 9.00 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
19 8.90 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
20 8.80 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
21 8.70 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
22 8.60 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
23 8.50 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
24 8.40 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
25 8.30 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
26 8.20 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
27 8.10 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
28 8.00 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
29 7.90 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
30 7.80 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
31 7.70 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
32 7.60 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
33 7.50 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
34 7.40 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
35 7.30 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
36 7.20 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
37 7.10 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
38 7.00 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
39 6.90 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
40 6.80 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
41 6.70 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
42 6.60 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
43 6.50 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
44 6.40 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
45 6.30 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
46 6.20 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
47 6.10 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
48 6.00 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
49 5.90 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
50 5.80 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.
51 5.70 0.	1.70E-05	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 15000.					DENSITY (GM/CC) 1.2938-07 (10.0E-03 NORMAL)				
PHOTON ENERGY S-B	OS S-B	OS S-B	NO BETA	NO GAMMA	NO PHOTO-DET (IONS)	D- FREE-FREE	N P.E.	0 P.E.	TOTAL AIR
CONT.	CONT.	CONT.	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
1 10.70 0.	4.40E-13	0.	0.	0.	0.	5.73E-10	5.19E-09	7.41E-07	2.35E-07
2 10.60 0.	4.30E-13	0.	0.	0.	0.	5.74E-10	5.19E-09	7.41E-07	2.35E-07
3 10.50 0.	4.20E-13	0.	0.	0.	0.	5.75E-10	5.19E-09	7.41E-07	2.35E-07
4 10.40 0.	4.10E-13	0.	0.	0.	0.	5.76E-10	5.19E-09	7.41E-07	2.35E-07
5 10.30 0.	4.00E-13	0.	0.	0.	0.	5.77E-10	5.19E-09	7.41E-07	2.35E-07
6 10.20 0.	3.90E-13	0.	0.	0.	0.	5.78E-10	5.19E-09	7.41E-07	2.35E-07
7 10.10 0.	3.80E-13	0.	0.	0.	0.	5.79E-10	5.19E-09	7.41E-07	2.35E-07
8 10.00 0.	3.70E-13	0.	0.	0.	0.	5.80E-10	5.19E-09	7.41E-07	2.35E-07
9 9.90 0.	3.60E-13	0.	0.	0.	0.	5.81E-10	5.19E-09	7.41E-07	2.35E-07
10 9.80 0.	3.50E-13	0.	0.	0.	0.	5.82E-10	5.19E-09	7.41E-07	2.35E-07
11 9.70 0.	3.40E-13	0.	0.	0.	0.	5.83E-10	5.19E-09	7.41E-07	2.35E-07
12 9.60 0.	3.30E-13	0.	0.	0.	0.	5.84E-10	5.19E-09	7.41E-07	2.35E-07
13 9.50 0.	3.20E-13	0.	0.	0.	0.	5.85E-10	5.19E-09	7.41E-07	2.35E-07
14 9.40 0.	3.10E-13	0.	0.	0.	0.	5.86E-10	5.19E-09	7.41E-07	2.35E-07
15 9.30 0.	3.00E-13	0.	0.	0.	0.	5.87E-10	5.19E-09	7.41E-07	2.35E-07
16 9.20 0.	2.90E-13	0.	0.	0.	0.	5.88E-10	5.19E-09	7.41E-07	2.35E-07
17 9.10 0.	2.80E-13	0.	0.	0.	0.	5.89E-10	5.19E-09	7.41E-07	2.35E-07
18 9.00 0.	2.70E-13	0.	0.	0.	0.	5.90E-10	5.19E-09	7.41E-07	2.35E-07
19 8.90 0.	2.60E-13	0.	0.	0.	0.	5.91E-10	5.19E-09	7.41E-07	2.35E-07
20 8.80 0.	2.50E-13	0.	0.	0.	0.	5.92E-10	5.19E-09	7.41E-07	2.35E-07
21 8.70 0.	2.40E-13	0.	0.	0.	0.	5.93E-10	5.19E-09	7.41E-07	2.35E-07
22 8.60 0.	2.30E-13	0.	0.	0.	0.	5.94E-10	5.19E-09	7.41E-07	2.35E-07
23 8.50 0.	2.20E-13	0.	0.	0.	0.	5.95E-10	5.19E-09	7.41E-07	2.35E-07
24 8.40 0.	2.10E-13	0.	0.	0.	0.	5.96E-10	5.19E-09	7.41E-07	2.35E-07
25 8.30 0.	2.00E-13	0.	0.	0.	0.	5.97E-10	5.19E-09	7.41E-07	2.35E-07
26 8.20 0.	1.90E-13	0.	0.	0.	0.	5.98E-10	5.19E-09	7.41E-07	2.35E-07
27 8.10 0.	1.80E-13	0.	0.	0.	0.	5.99E-10	5.19E-09	7.41E-07	2.35E-07
28 8.00 0.	1.70E-13	0.	0.	0.	0.	6.00E-10	5.19E-09	7.41E-07	2.35E-07
29 7.90 0.	1.60E-13	0.	0.	0.	0.	6.01E-10	5.19E-09	7.41E-07	2.35E-07
30 7.80 0.	1.50E-13	0.	0.	0.	0.	6.02E-10	5.19E-09	7.41E-07	2.35E-07
31 7.70 0.	1.40E-13	0.	0.	0.	0.	6.03E-10	5.19E-09	7.41E-07	2.35E-07
32 7.60 0.	1.30E-13	0.	0.	0.	0.	6.04E-10	5.19E-09	7.41E-07	2.35E-07
33 7.50 0.	1.20E-13	0.	0.	0.	0.	6.05E-10	5.19E-09	7.41E-07	2.35E-07
34 7.40 0.	1.10E-13	0.	0.	0.	0.	6.06E-10	5.19E-09	7.41E-07	2.35E-07
35 7.30 0.	1.00E-13	0.	0.	0.	0.	6.07E-10	5.19E-09	7.41E-07	2.35E-07
36 7.20 0.	0.90E-13	0.	0.	0.	0.	6.08E-10	5.19E-09	7.41E-07	2.35E-07
37 7.10 0.	0.80E-13	0.	0.	0.	0.	6.09E-10	5.19E-09	7.41E-07	2.35E-07
38 7.00 0.	0.70E-13	0.	0.	0.	0.	6.10E-10	5.19E-09	7.41E-07	2.35E-07
39 6.90 0.	0.60E-13	0.	0.	0.	0.	6.11E-10	5.19E-09	7.41E-07	2.35E-07
40 6.80 0.	0.50E-13	0.	0.	0.	0.	6.12E-10	5.19E-09	7.41E-07	2.35E-07
41 6.70 0.	0.40E-13	0.	0.	0.	0.	6.13E-10	5.19E-09	7.41E-07	2.35E-07
42 6.60 0.	0.30E-13	0.	0.	0.	0.	6.14E-10	5.19E-09	7.41E-07	2.35E-07
43 6.50 0.	0.20E-13	0.	0.	0.	0.	6.15E-10	5.19E-09	7.41E-07	2.35E-07
44 6.40 0.	0.10E-13	0.	0.	0.	0.	6.16E-10	5.19E-09	7.41E-07	2.35E-07
45 6.30 0.	0.05E-13	0.	0.	0.	0.	6.17E-10	5.19E-09	7.41E-07	2.35E-07
46 6.20 0.	0.02E-13	0.	0.	0.	0.	6.18E-10	5.19E-09	7.41E-07	2.35E-07
47 6.10 0.	0.01E-13	0.	0.	0.	0.	6.19E-10	5.19E-09	7.41E-07	2.35E-07
48 6.00 0.	0.005E-13	0.	0.	0.	0.	6.20E-10	5.19E-09	7.41E-07	2.35E-07
49 5.90 0.	0.002E-13	0.	0.	0.	0.	6.21E-10	5.19E-09	7.41E-07	2.35E-07
50 5.80 0.	0.001E-13	0.	0.	0.	0.	6.22E-10	5.19E-09	7.41E-07	2.35E-07
51 5.70 0.	0.0005E-13	0.	0.	0.	0.	6.23E-10	5.19E-09	7.41E-07	2.35E-07

TEMPERATURE (DEGREES K) 1500. DENSITY (GM/CC) 1.293E-07 (10 0E-05 NORMAL)

PHOTON O2 S-R ENERGY HANDS	1ST POS.	42	2ND POS.	42	1ST NEG.	42	BETA	NO GAMMA	NO VIB-ROT	NO 2	D- PHOTO-NET (TMS)	FREE-FREE (TMS)	W P.E.	U P.E.	TOTAL AIR
52	5.63	1.49E-23	0.	0.	0.	0.	2.63E-15	1.71E-14	0.	0.	6.12E-10	3.04E-08	3.07E-07	2.53E-07	6.08E-07
51	5.51	0.	0.	0.	0.	0.	3.21E-15	1.00E-14	0.	0.	6.15E-10	3.04E-08	3.13E-07	2.59E-07	6.11E-07
54	5.61	0.	0.	0.	0.	0.	2.90E-15	1.25E-14	0.	0.	6.19E-10	4.04E-08	3.20E-07	2.03E-07	6.23E-07
55	5.51	0.	0.	0.	0.	0.	2.97E-15	1.62E-14	0.	0.	6.23E-10	4.32E-08	3.26E-07	2.07E-07	6.39E-07
54	5.27	0.	0.	0.	0.	0.	3.17E-15	1.15E-14	0.	0.	6.27E-10	4.57E-08	3.30E-07	2.72E-07	6.55E-07
57	5.13	0.	0.	0.	0.	0.	3.15E-15	1.50E-14	0.	0.	6.32E-10	4.05E-08	3.45E-07	2.78E-07	6.72E-07
54	5.03	2.11E-16	0.	0.	0.	0.	2.80E-15	1.30E-14	0.	0.	6.37E-10	5.19E-08	3.54E-07	2.63E-07	6.91E-07
50	4.91	5.95E-14	0.	0.	0.	0.	3.16E-15	1.48E-14	0.	0.	6.42E-10	5.47E-08	3.67E-07	2.08E-07	7.11E-07
60	4.87	9.30E-16	0.	0.	0.	0.	3.74E-15	1.24E-14	0.	0.	6.48E-10	5.82E-08	3.80E-07	2.94E-07	7.33E-07
61	4.79	1.23E-15	0.	0.	0.	0.	3.74E-15	1.24E-14	0.	0.	6.48E-10	5.82E-08	3.80E-07	3.02E-07	7.57E-07
62	4.63	1.68E-15	0.	0.	0.	0.	3.40E-15	1.13E-14	0.	0.	6.58E-10	6.62E-08	4.08E-07	3.09E-07	7.84E-07
63	4.53	1.74E-15	0.	0.	0.	0.	3.08E-15	8.47E-15	0.	0.	6.64E-10	7.00E-08	4.27E-07	3.17E-07	8.15E-07
64	4.40	1.44E-15	0.	0.	0.	0.	2.77E-15	5.91E-15	0.	0.	6.69E-10	7.97E-08	4.46E-07	3.25E-07	8.48E-07
65	4.31	1.21E-15	0.	0.	0.	0.	2.49E-15	3.63E-15	0.	0.	6.74E-10	8.12E-08	4.47E-07	3.29E-07	8.77E-07
64	4.23	1.59E-15	0.	0.	0.	0.	3.04E-15	2.63E-15	0.	0.	6.80E-10	8.77E-08	4.48E-07	3.32E-07	8.78E-07
67	4.10	1.48E-15	0.	0.	0.	0.	2.93E-15	7.10E-16	0.	0.	6.82E-10	9.34E-08	5.09E-07	1.15E-07	7.10E-07
68	4.00	1.95E-15	0.	0.	0.	0.	2.81E-15	5.44E-16	0.	0.	6.82E-10	1.01E-07	4.78E-07	1.15E-07	6.98E-07
69	3.93	1.13E-15	0.	0.	0.	0.	3.92E-16	3.14E-16	0.	0.	6.82E-10	1.09E-07	3.79E-07	1.22E-07	6.11E-07
70	3.83	1.23E-15	0.	0.	0.	0.	6.15E-16	1.49E-11	0.	0.	6.80E-10	1.19E-07	3.79E-07	1.27E-07	6.11E-07
71	3.73	1.08E-15	0.	0.	0.	0.	6.78E-16	4.4E-12	0.	0.	6.69E-10	1.24E-07	3.84E-07	1.40E-07	6.53E-07
72	3.61	9.83E-16	0.	0.	0.	0.	4.43E-16	3.07E-11	0.	0.	6.27E-10	1.39E-07	4.18E-07	1.94E-07	7.12E-07
73	3.53	9.90E-16	0.	0.	0.	0.	4.03E-16	4.50E-11	0.	0.	5.73E-10	1.51E-07	4.05E-07	1.70E-07	7.47E-07
74	3.43	8.95E-16	0.	0.	0.	0.	3.65E-16	4.41E-12	0.	0.	5.31E-10	1.65E-07	5.19E-07	1.09E-07	8.74E-07
75	3.33	4.59E-16	0.	0.	0.	0.	3.77E-16	1.68E-15	0.	0.	5.31E-10	1.81E-07	5.73E-07	2.07E-07	9.43E-07
76	3.29	5.50E-16	0.	0.	0.	0.	2.41E-16	6.51E-11	0.	0.	3.12E-10	1.99E-07	6.30E-07	2.24E-07	1.06E-06
77	3.10	5.21E-16	0.	0.	0.	0.	1.46E-16	1.32E-11	0.	0.	3.33E-10	2.19E-07	6.87E-07	2.49E-07	1.13E-06
78	3.03	4.81E-15	0.	0.	0.	0.	1.15E-16	3.41E-11	0.	0.	3.33E-10	2.42E-07	7.44E-07	2.89E-07	1.23E-06
79	2.93	3.42E-16	0.	0.	0.	0.	6.01E-15	1.94E-11	0.	0.	3.34E-10	2.68E-07	8.04E-07	3.20E-07	1.36E-06
80	2.83	3.94E-16	0.	0.	0.	0.	3.32E-15	1.11E-11	0.	0.	3.34E-10	2.90E-07	8.73E-07	3.08E-07	1.48E-06
81	2.73	2.49E-16	0.	0.	0.	0.	1.95E-15	1.43E-11	0.	0.	3.34E-10	3.32E-07	9.47E-07	2.96E-07	1.58E-06
82	2.67	1.44E-16	0.	0.	0.	0.	7.45E-16	1.53E-12	0.	0.	3.34E-10	3.73E-07	1.02E-06	1.64E-07	1.56E-06
83	2.59	7.95E-18	0.	0.	0.	0.	4.48E-17	1.48E-12	0.	0.	3.34E-10	4.20E-07	7.89E-07	1.90E-07	1.59E-06
84	2.45	0.	4.11E-15	0.	0.	0.	1.29E-12	4.33E-16	0.	0.	3.34E-10	4.74E-07	9.09E-07	2.83E-07	1.62E-06
85	2.30	0.	1.30E-14	0.	0.	0.	0.	0.	0.	0.	3.32E-10	5.41E-07	1.10E-06	2.79E-07	1.82E-06
86	2.20	0.	3.13E-14	0.	0.	0.	0.	0.	0.	0.	3.31E-10	6.20E-07	1.30E-06	3.35E-07	2.28E-06
87	2.19	0.	3.04E-14	0.	0.	0.	0.	0.	0.	0.	3.29E-10	7.14E-07	1.52E-06	3.91E-07	2.62E-06
88	2.03	0.	7.29E-14	0.	0.	0.	0.	0.	0.	0.	3.19E-10	8.24E-07	1.73E-06	4.47E-07	3.01E-06
89	1.99	0.	6.04E-13	0.	0.	0.	0.	0.	0.	0.	3.06E-10	9.67E-07	1.97E-06	5.14E-07	3.45E-06
90	1.89	0.	1.88E-14	0.	0.	0.	0.	0.	0.	0.	2.93E-10	1.14E-06	2.35E-06	6.21E-07	4.11E-06
91	1.79	0.	9.07E-14	0.	0.	0.	0.	0.	0.	0.	2.76E-10	1.34E-06	2.62E-06	7.54E-07	4.93E-06
92	1.63	0.	7.25E-14	0.	0.	0.	0.	0.	0.	0.	2.34E-10	1.63E-06	3.12E-06	8.44E-07	5.76E-06
93	1.50	0.	8.49E-14	0.	0.	0.	0.	0.	0.	0.	1.06E-10	1.99E-06	3.93E-06	1.03E-06	6.97E-06
94	1.40	0.	9.49E-14	0.	0.	0.	0.	0.	0.	0.	0.	2.45E-06	3.86E-06	1.12E-06	7.31E-06
95	1.30	0.	6.49E-14	0.	0.	0.	0.	0.	0.	0.	0.	3.04E-06	5.28E-06	1.24E-06	9.41E-06
96	1.23	0.	6.24E-14	0.	0.	0.	0.	0.	0.	0.	0.	3.95E-06	6.97E-06	1.64E-06	1.26E-05
97	1.10	0.	5.77E-14	0.	0.	0.	0.	0.	0.	0.	0.	5.11E-06	8.93E-06	1.97E-06	1.48E-05
98	1.00	0.	5.39E-14	0.	0.	0.	0.	0.	0.	0.	0.	6.92E-06	1.04E-05	2.39E-06	1.97E-05
99	0.98	0.	4.39E-14	0.	0.	0.	0.	0.	0.	0.	0.	9.82E-06	1.22E-05	2.81E-06	2.45E-05
100	0.80	0.	2.09E-14	0.	0.	0.	0.	0.	0.	0.	0.	1.34E-05	1.36E-05	3.04E-06	3.02E-05
101	0.70	0.	4.85E-15	0.	0.	0.	0.	0.	0.	0.	0.	2.05E-05	1.29E-05	2.99E-06	3.46E-05
102	0.60	0.	7.83E-16	0.	0.	0.	0.	0.	0.	0.	0.	3.31E-05	1.40E-05	2.90E-06	5.00E-05

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 1900. DENSITY (GM/CC) 1.293E-06 (1.0E-05 NORMAL)

PHOTON ENERGY E.V.	02 S-R RANDBS CMT.	02 S-R RANDBS CMT.	NO BETA	NO GAMMA	NO 2	Q- PHOTO-DET (FPS)	FRES-FREE N	P.E.	0 P.E.	TOTAL AIR
1 10.70	0.	0.	0.	0.	0.	9.31E-13	9.50E-11	7.00E-09	2.52E-09	1.00E-08
2 10.60	0.	0.	0.	0.	0.	9.32E-13	9.66E-11	7.00E-09	2.51E-09	1.00E-08
3 10.50	0.	0.	0.	0.	0.	9.33E-13	9.82E-11	7.00E-09	2.51E-09	1.00E-08
4 10.40	0.	0.	0.	0.	0.	9.34E-13	9.98E-11	7.00E-09	2.50E-09	1.00E-08
5 10.30	0.	0.	0.	0.	0.	9.35E-13	1.01E-10	7.00E-09	2.49E-09	1.00E-08
6 10.20	0.	0.	0.	0.	0.	9.36E-13	1.03E-10	7.00E-09	2.48E-09	1.00E-08
7 10.10	0.	0.	0.	0.	0.	9.37E-13	1.05E-10	7.00E-09	2.47E-09	1.00E-08
8 10.00	0.	0.	0.	0.	0.	9.38E-13	1.07E-10	7.00E-09	2.46E-09	1.00E-08
9 9.90	0.	0.	0.	0.	0.	9.39E-13	1.09E-10	7.00E-09	2.45E-09	1.00E-08
10 9.80	0.	0.	0.	0.	0.	9.40E-13	1.11E-10	7.00E-09	2.44E-09	1.00E-08
11 9.70	0.	0.	0.	0.	0.	9.41E-13	1.13E-10	7.00E-09	2.43E-09	1.00E-08
12 9.60	0.	0.	0.	0.	0.	9.42E-13	1.15E-10	7.00E-09	2.42E-09	1.00E-08
13 9.50	0.	0.	0.	0.	0.	9.43E-13	1.17E-10	7.00E-09	2.41E-09	1.00E-08
14 9.40	0.	0.	0.	0.	0.	9.44E-13	1.19E-10	7.00E-09	2.40E-09	1.00E-08
15 9.30	0.	0.	0.	0.	0.	9.45E-13	1.21E-10	7.00E-09	2.39E-09	1.00E-08
16 9.20	0.	0.	0.	0.	0.	9.46E-13	1.23E-10	7.00E-09	2.38E-09	1.00E-08
17 9.10	0.	0.	0.	0.	0.	9.47E-13	1.25E-10	7.00E-09	2.37E-09	1.00E-08
18 9.00	0.	0.	0.	0.	0.	9.48E-13	1.27E-10	7.00E-09	2.36E-09	1.00E-08
19 8.90	0.	0.	0.	0.	0.	9.49E-13	1.29E-10	7.00E-09	2.35E-09	1.00E-08
20 8.80	0.	0.	0.	0.	0.	9.50E-13	1.31E-10	7.00E-09	2.34E-09	1.00E-08
21 8.70	0.	0.	0.	0.	0.	9.51E-13	1.33E-10	7.00E-09	2.33E-09	1.00E-08
22 8.60	0.	0.	0.	0.	0.	9.52E-13	1.35E-10	7.00E-09	2.32E-09	1.00E-08
23 8.50	0.	0.	0.	0.	0.	9.53E-13	1.37E-10	7.00E-09	2.31E-09	1.00E-08
24 8.40	0.	0.	0.	0.	0.	9.54E-13	1.39E-10	7.00E-09	2.30E-09	1.00E-08
25 8.30	0.	0.	0.	0.	0.	9.55E-13	1.41E-10	7.00E-09	2.29E-09	1.00E-08
26 8.20	0.	0.	0.	0.	0.	9.56E-13	1.43E-10	7.00E-09	2.28E-09	1.00E-08
27 8.10	0.	0.	0.	0.	0.	9.57E-13	1.45E-10	7.00E-09	2.27E-09	1.00E-08
28 8.00	0.	0.	0.	0.	0.	9.58E-13	1.47E-10	7.00E-09	2.26E-09	1.00E-08
29 7.90	0.	0.	0.	0.	0.	9.59E-13	1.49E-10	7.00E-09	2.25E-09	1.00E-08
30 7.80	0.	0.	0.	0.	0.	9.60E-13	1.51E-10	7.00E-09	2.24E-09	1.00E-08
31 7.70	0.	0.	0.	0.	0.	9.61E-13	1.53E-10	7.00E-09	2.23E-09	1.00E-08
32 7.60	0.	0.	0.	0.	0.	9.62E-13	1.55E-10	7.00E-09	2.22E-09	1.00E-08
33 7.50	0.	0.	0.	0.	0.	9.63E-13	1.57E-10	7.00E-09	2.21E-09	1.00E-08
34 7.40	0.	0.	0.	0.	0.	9.64E-13	1.59E-10	7.00E-09	2.20E-09	1.00E-08
35 7.30	0.	0.	0.	0.	0.	9.65E-13	1.61E-10	7.00E-09	2.19E-09	1.00E-08
36 7.20	0.	0.	0.	0.	0.	9.66E-13	1.63E-10	7.00E-09	2.18E-09	1.00E-08
37 7.10	0.	0.	0.	0.	0.	9.67E-13	1.65E-10	7.00E-09	2.17E-09	1.00E-08
38 7.00	0.	0.	0.	0.	0.	9.68E-13	1.67E-10	7.00E-09	2.16E-09	1.00E-08
39 6.90	0.	0.	0.	0.	0.	9.69E-13	1.69E-10	7.00E-09	2.15E-09	1.00E-08
40 6.80	0.	0.	0.	0.	0.	9.70E-13	1.71E-10	7.00E-09	2.14E-09	1.00E-08
41 6.70	0.	0.	0.	0.	0.	9.71E-13	1.73E-10	7.00E-09	2.13E-09	1.00E-08
42 6.60	0.	0.	0.	0.	0.	9.72E-13	1.75E-10	7.00E-09	2.12E-09	1.00E-08
43 6.50	0.	0.	0.	0.	0.	9.73E-13	1.77E-10	7.00E-09	2.11E-09	1.00E-08
44 6.40	0.	0.	0.	0.	0.	9.74E-13	1.79E-10	7.00E-09	2.10E-09	1.00E-08
45 6.30	0.	0.	0.	0.	0.	9.75E-13	1.81E-10	7.00E-09	2.09E-09	1.00E-08
46 6.20	0.	0.	0.	0.	0.	9.76E-13	1.83E-10	7.00E-09	2.08E-09	1.00E-08
47 6.10	0.	0.	0.	0.	0.	9.77E-13	1.85E-10	7.00E-09	2.07E-09	1.00E-08
48 6.00	0.	0.	0.	0.	0.	9.78E-13	1.87E-10	7.00E-09	2.06E-09	1.00E-08
49 5.90	0.	0.	0.	0.	0.	9.79E-13	1.89E-10	7.00E-09	2.05E-09	1.00E-08
50 5.80	0.	0.	0.	0.	0.	9.80E-13	1.91E-10	7.00E-09	2.04E-09	1.00E-08
51 5.70	0.	0.	0.	0.	0.	9.81E-13	1.93E-10	7.00E-09	2.03E-09	1.00E-08

ABSORPTION COEFFICIENTS OF HEATED AIR ('INVERSE CM.)
TEMPERATURE (DEGREES K) 1986. DENSITY (GM/CC) 1.293E-09 (1.0E-06 NORMAL)

PARTIAL PRESSURE P-RETRY HANDS	N2 1ST POS.	42 2ND POS.	N2 1ST NEG.	N2 2ND NEG.	NO GAMMA	NO VIB-ROT	NO 2	0- PHOTO-DFT (1/MS)	0- FREQ-FREE P.E.	0- P.E.	TOTAL AIR P.E.
52	9.64 1.40E-31	0.	0.	0.	3.02E-23	1.94E-22	0.	6.01E-16	4.82E-12	3.03E-11	2.79E-11
53	9.50 0.	0.	0.	0.	3.40E-23	1.93E-22	0.	6.05E-16	4.79E-12	3.74E-11	2.79E-11
54	9.40 0.	0.	0.	0.	3.32E-23	1.93E-22	0.	6.08E-16	4.69E-12	3.85E-11	2.84E-11
55	9.30 0.	0.	0.	0.	3.45E-23	1.93E-22	0.	7.63E-16	4.75E-12	3.96E-11	2.84E-11
56	9.20 0.	0.	0.	0.	3.63E-23	1.93E-22	0.	7.67E-16	5.83E-12	4.07E-11	2.96E-11
57	9.10 0.	0.	0.	0.	3.61E-23	1.93E-22	0.	7.13E-16	5.33E-12	4.19E-11	3.07E-11
58	9.00 2.40E-24	0.	0.	0.	3.21E-23	1.93E-22	0.	7.19E-16	5.64E-12	4.33E-11	3.07E-11
59	4.90 5.95E-24	0.	0.	0.	3.62E-23	1.93E-22	0.	7.25E-16	6.07E-12	4.48E-11	3.13E-11
60	4.80 1.10E-23	0.	0.	0.	3.07E-23	1.93E-22	0.	7.31E-16	6.07E-12	4.64E-11	3.20E-11
61	4.70 1.40E-23	0.	0.	0.	3.02E-23	1.93E-22	0.	7.37E-16	6.07E-12	4.81E-11	3.20E-11
62	4.60 1.90E-23	0.	0.	0.	3.08E-23	1.93E-22	0.	7.43E-16	6.07E-12	5.02E-11	3.37E-11
63	4.50 2.10E-23	0.	0.	0.	3.58E-23	1.93E-22	0.	7.49E-16	7.78E-12	5.28E-11	3.47E-11
64	4.40 2.10E-23	0.	0.	0.	3.58E-23	1.93E-22	0.	7.55E-16	8.33E-12	5.46E-11	3.47E-11
65	4.30 2.02E-23	0.	0.	0.	3.32E-23	1.93E-22	0.	7.61E-16	8.33E-12	5.61E-11	3.47E-11
66	4.20 1.97E-23	0.	0.	0.	3.40E-23	1.93E-22	0.	7.67E-16	9.90E-12	5.89E-11	3.47E-11
67	4.10 1.74E-23	0.	0.	0.	3.36E-23	1.93E-22	0.	7.70E-16	1.03E-11	6.09E-11	3.47E-11
68	4.00 1.50E-23	0.	0.	0.	3.25E-23	1.93E-22	0.	7.73E-16	1.11E-11	6.09E-11	3.47E-11
69	3.90 1.33E-23	0.	0.	0.	3.25E-23	1.93E-22	0.	7.78E-16	1.20E-11	6.36E-11	3.47E-11
70	3.80 1.45E-23	0.	0.	0.	4.03E-22	1.93E-22	0.	7.87E-16	1.30E-11	6.36E-11	3.47E-11
71	3.70 1.27E-23	0.	0.	0.	4.04E-22	1.93E-22	0.	7.87E-16	1.53E-11	6.36E-11	3.47E-11
72	3.60 1.14E-23	0.	0.	0.	4.04E-22	1.93E-22	0.	6.47E-16	1.67E-11	6.36E-11	3.47E-11
73	3.50 1.05E-23	0.	0.	0.	4.04E-22	1.93E-22	0.	3.73E-16	1.87E-11	6.36E-11	3.47E-11
74	3.40 9.40E-24	0.	0.	0.	4.07E-22	1.93E-22	0.	3.73E-16	1.87E-11	6.36E-11	3.47E-11
75	3.30 7.54E-24	0.	0.	0.	4.20E-22	1.93E-22	0.	3.73E-16	1.87E-11	6.36E-11	3.47E-11
76	3.20 6.48E-24	0.	0.	0.	2.60E-22	1.93E-22	0.	3.73E-16	2.14E-11	6.36E-11	3.47E-11
77	3.10 6.14E-24	0.	0.	0.	2.87E-22	1.93E-22	0.	3.73E-16	2.40E-11	6.36E-11	3.47E-11
78	3.00 5.43E-24	0.	0.	0.	1.25E-22	1.93E-22	0.	3.73E-16	2.40E-11	6.36E-11	3.47E-11
79	2.90 4.70E-24	0.	0.	0.	7.70E-23	1.93E-22	0.	3.73E-16	2.40E-11	6.36E-11	3.47E-11
80	2.80 4.05E-24	0.	0.	0.	3.70E-23	1.93E-22	0.	3.73E-16	3.27E-11	6.36E-11	3.47E-11
81	2.70 2.93E-24	0.	0.	0.	1.72E-23	1.93E-22	0.	3.73E-16	3.27E-11	6.36E-11	3.47E-11
82	2.60 1.35E-24	0.	0.	0.	4.91E-24	1.93E-22	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
83	2.50 0.37E-24	0.	0.	0.	9.40E-25	1.93E-22	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
84	2.40 0.	0.	0.	0.	4.97E-25	1.93E-22	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
85	2.30 0.	0.	0.	0.	1.93E-22	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
86	2.20 0.	0.	0.	0.	4.27E-22	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
87	2.10 0.	0.	0.	0.	8.12E-22	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
88	2.00 0.	0.	0.	0.	1.13E-21	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
89	1.90 0.	0.	0.	0.	9.40E-22	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
90	1.80 0.	0.	0.	0.	1.10E-21	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
91	1.70 0.	0.	0.	0.	0.05E-22	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
92	1.60 0.	0.	0.	0.	9.40E-22	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
93	1.50 0.	0.	0.	0.	9.40E-22	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
94	1.40 0.	0.	0.	0.	6.05E-22	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
95	1.30 0.	0.	0.	0.	6.05E-22	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
96	1.20 0.	0.	0.	0.	9.08E-22	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
97	1.10 0.	0.	0.	0.	4.43E-22	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
98	1.00 0.	0.	0.	0.	9.08E-22	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
99	0.90 0.	0.	0.	0.	4.04E-22	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
100	0.80 0.	0.	0.	0.	2.20E-22	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
101	0.70 0.	0.	0.	0.	5.51E-23	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11
102	0.60 0.	0.	0.	0.	8.06E-24	0.	0.	3.73E-16	4.10E-11	6.36E-11	3.47E-11

TEMPERATURE (DEGREES F) 1600. DENSITY (GM/CC) 1.2935-02 (1.02 01 NORMAL)

[illegible]

WMOYR	02	5-8	42	42	42	12°	NO	IN	NO	NO	NO	2	8-	FREE-FREE	W	8	TOTAL				
ENEMY	LANDS	137	POS.	2ND	POS.	131	WEB.	NETA	GANNA	VIO-ROY	NO	2	PMO79-NET	(TINS)	P.C.	P.C.	ATC				
52	5.07	5.40C-11	0.	5.	0.	0.	1.39E-02	0.79E-02	0.	0.	0.	0.	3.04E	00	2.64E-01	1.05E	00	0.39E-21	0.35E	00	
53	5.51	0.	0.	0.	0.	0.	1.05E-02	0.14E-02	0.	0.	0.	0.	3.17E	00	2.01E-01	1.00E	00	0.60E-01	0.70E	00	
54	5.44	0.	0.	0.	0.	0.	1.70E-02	0.40E-02	0.	0.	0.	0.	3.09E	00	2.07E-01	1.92E	00	0.99E-01	0.6	00	
55	5.51	0.	0.	0.	0.	0.	1.59E-02	0.30E-02	0.	0.	0.	0.	3.11E	00	3.14E-01	1.00E	00	0.97E-01	0.07E	00	
56	5.27	0.	0.	0.	0.	0.	1.64E-02	0.84E-02	0.	0.	0.	0.	3.13E	00	3.32E-01	2.03E	00	0.97E-01	0.04E	00	
57	5.15	0.	0.	0.	0.	0.	1.64E-02	7.09E-02	0.	0.	0.	0.	3.10E	00	3.93E-01	2.09E	00	1.01E	00	0.70E	00
58	5.08	7.03E-04	0.	0.	0.	0.	1.49E-02	7.20E-02	0.	0.	0.	0.	3.10E	00	3.74E-01	2.15E	00	1.02E	00	0.02E	00
59	5.09	1.04E-03	0.	0.	0.	0.	1.65E-02	7.04E-02	0.	0.	0.	0.	3.21E	00	3.00E-01	2.22E	00	1.05E	00	0.07E	00
60	4.93	3.41E-03	0.	0.	0.	0.	1.77E-02	7.33E-02	0.	0.	0.	0.	3.24E	00	4.23E-01	2.30E	00	1.07E	00	7.12E	00
61	4.70	0.50E-03	0.	0.	0.	0.	1.74E-02	6.07E-02	0.	0.	0.	0.	3.26E	00	4.91E-01	2.30E	00	1.10E	00	7.27E	00
62	4.66	0.29E-03	0.	1.79E-02	0.	0.	1.40E-02	6.07E-02	0.	0.	0.	0.	3.20E	00	4.02E-01	2.07E	00	1.13E	00	7.45E	00
63	4.50	0.40E-03	0.	0.	0.	0.	1.40E-02	4.91E-02	0.	0.	0.	0.	3.31E	00	5.17E-01	2.39E	00	1.15E	00	7.04E	00
64	4.40	0.49E-03	0.	0.	0.	0.	1.45E-02	3.13E-02	0.	0.	0.	0.	3.14E	00	5.91E-01	2.71E	00	1.10E	00	7.09E	00
65	4.38	0.47E-03	0.	0.	0.	0.	1.55E-02	3.04E-02	0.	0.	0.	0.	3.17E	00	5.91E-01	2.04E	00	1.22E	00	0.23E	00
66	4.23	0.01E-03	0.	0.	0.	0.	1.58E-02	1.30E-02	0.	0.	0.	0.	3.39E	00	6.95E-01	2.07E	00	1.27E	00	0.04E	00
67	4.14	0.01E-03	0.	0.	0.	0.	1.58E-02	1.30E-02	0.	0.	0.	0.	3.41E	00	6.95E-01	2.07E	00	1.26E	00	0.71E	00
68	4.00	5.14E-03	0.	0.07E-01	0.	0.	1.53E-02	2.00E-02	0.	0.	0.	0.	3.42E	00	7.34E-01	3.24E	00	0.07E-01	0.00E	00	
69	3.91	1.34E-03	0.	3.75E-01	1.09E-02	0.	1.39E-02	1.17E-02	0.	0.	0.	0.	3.41E	00	7.04E-01	3.10E	00	0.42E-01	0.19E	00	
70	3.68	0.47E-03	0.	0.	0.	0.	1.49E-02	0.	0.	0.	0.	0.	3.40E	00	6.00E-01	3.19E	00	0.91E-01	0.00E	00	
71	3.7E	0.10E-03	0.	0.	0.	0.	1.38E-02	1.25E-02	0.	0.	0.	0.	3.14E	00	9.17E-01	2.90E	00	0.91E-01	0.00E	00	
72	3.68	0.35E-03	0.	0.	0.	0.															

ABSORPTION COEFFICIENTS OF HEATED AIR (INFORMER CH.)

TEMPERATURE (DEGREES K) 10000. DENSITY (GM/CC) 1.293E-03 (1.00 20 NORMAL)

PHOTON ENERGY E.V.	02 S-R CONT.	W2 R-H WC. 1	NO DETA	NO GAMMA	NO 2	0- PHOTO-DET (P/MS)	0- PRESS-DET (P/MS)	W P.E.	0 P.E.	TOTAL AIR P.E.
1 10.70 0.	0.	3.27E-02	0.	0.	0.	0.60E-02	3.50E-03	2.35E-01	0.60E-02	2.37E-01
2 10.60 0.	0.	2.95E-02	0.	0.	0.	5.70E-02	3.43E-03	4.17E-01	0.62E-02	0.22E-01
3 10.50 0.	0.	2.97E-02	0.	0.	0.	0.71E-02	3.43E-03	4.19E-01	0.60E-02	0.22E-01
4 10.40 0.	0.	2.70E-02	0.	0.	0.	0.70E-02	3.40E-03	4.20E-01	0.57E-02	0.27E-01
5 10.30 0.	0.	2.42E-02	0.	0.	0.	0.70E-02	3.40E-03	4.21E-01	0.54E-02	0.32E-01
6 10.20 0.	0.	2.44E-02	0.	0.	0.	0.70E-02	3.40E-03	4.22E-01	0.51E-02	0.37E-01
7 10.10 0.	0.	2.33E-02	0.	0.	0.	0.71E-02	3.40E-03	4.23E-01	0.48E-02	0.42E-01
8 10.00 0.	0.	2.33E-02	0.	0.	0.	0.71E-02	3.40E-03	4.24E-01	0.45E-02	0.47E-01
9 9.90 0.	0.	2.07E-02	0.	0.	0.	0.70E-02	3.40E-03	4.24E-01	0.42E-02	0.52E-01
10 9.80 0.	0.	1.93E-02	0.	0.	0.	0.69E-02	3.40E-03	4.24E-01	0.39E-02	0.57E-01
11 9.70 0.	0.	1.85E-02	0.	0.	0.	0.68E-02	3.40E-03	4.24E-01	0.36E-02	0.62E-01
12 9.60 0.	0.	1.70E-02	0.	0.	0.	0.64E-02	3.40E-03	4.22E-01	0.33E-02	0.67E-01
13 9.50 0.	0.	1.51E-02	0.	0.	0.	0.49E-02	3.40E-03	4.29E-01	0.30E-02	0.72E-01
14 9.40 0.	0.	1.42E-02	0.	0.	0.	0.40E-02	3.40E-03	4.30E-01	0.27E-02	0.77E-01
15 9.30 0.	0.	1.45E-02	0.	0.	0.	0.32E-02	3.40E-03	4.30E-01	0.24E-02	0.82E-01
16 9.20 0.	0.	1.10E-02	0.	0.	0.	0.05E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
17 9.10 0.	0.	1.22E-02	0.	0.	0.	0.06E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
18 9.00 0.	0.	1.10E-02	0.	0.	0.	0.06E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
19 8.90 0.	0.	1.01E-02	0.	0.	0.	0.06E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
20 8.80 0.	0.	0.00E-03	0.	0.	0.	0.06E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
21 8.70 0.	0.	0.51E-03	0.	0.	0.	0.11E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
22 8.60 0.	0.	0.74E-03	0.	0.	0.	0.14E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
23 8.50 0.	0.	0.99E-03	0.	0.	0.	0.17E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
24 8.40 0.	0.	0.91E-03	0.	0.	0.	0.22E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
25 8.30 0.	0.	0.43E-03	0.	0.	0.	0.27E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
26 8.20 0.	0.	0.55E-03	0.	0.	0.	0.37E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
27 8.10 0.	0.	0.47E-03	0.	0.	0.	0.37E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
28 8.00 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
29 7.90 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
30 7.80 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
31 7.70 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
32 7.60 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
33 7.50 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
34 7.40 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
35 7.30 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
36 7.20 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
37 7.10 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
38 7.00 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
39 6.90 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
40 6.80 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
41 6.70 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
42 6.60 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
43 6.50 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
44 6.40 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
45 6.30 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
46 6.20 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
47 6.10 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
48 6.00 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
49 5.90 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
50 5.80 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01
51 5.70 0.	0.	0.46E-03	0.	0.	0.	0.42E-02	3.40E-03	4.33E-01	0.21E-02	0.87E-01

ABSORPTION COEFFICIENTS OF HEATED AIR INVERSE CM.)

TEMPERATURE (DEGREES K) 16000. DENSITY (GM/CC) 1.293E-03 (1.0E 00 NORMAL)

[illegible]

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-04 (1.9E-81 NORMAL)		0- PHOTO-DET (TMS)		P.F.		TOTAL AIR	
NO	TEMP	NO	BETA	NO	GAMMA	NO	2	NO	0	NO	0
1	10.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2	10.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3	10.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4	10.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5	10.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6	10.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7	10.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8	10.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9	9.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10	9.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	9.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12	9.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13	9.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14	9.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15	9.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16	9.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17	9.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18	9.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19	8.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20	8.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	8.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22	8.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23	8.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24	8.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25	8.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26	8.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27	8.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28	8.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29	7.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30	7.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	7.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32	7.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33	7.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34	7.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35	7.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36	7.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37	7.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38	7.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39	6.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40	6.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	6.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42	6.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43	6.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44	6.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45	6.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46	6.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47	6.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48	6.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49	5.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50	5.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	5.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEAVY AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 10000. DENSITY (GM/CC) 1.293E-04 (1.0E-01 NORMAL)

PHOTON ENERGY	W2	W2 POS.	W2 NEG.	BETA	GAMMA	NO	YIR-ROT	NO	PHOTO-DEF (FMS)	0- FREQ-FREQ	M	0	TOTAL AIR
CM/SEC	1ST POS.	1ST NEG.	1ST NEG.									P.E.	P.E.
52	5.63	4.30E-19	0.	0.	9.50E-07	6.26E-06	0.	0.	2.36E-03	2.00E-03	1.53E-02	0.14E-03	2.70E-02
53	5.50	0.	0.	0.	1.10E-06	5.02E-05	0.	0.	2.39E-03	2.10E-03	1.59E-02	0.24E-03	2.83E-02
54	5.40	0.	0.	0.	1.07E-06	4.62E-05	0.	0.	2.39E-03	2.30E-03	1.59E-02	0.39E-03	2.89E-02
55	5.35	0.	0.	0.	1.10E-06	5.04E-05	0.	0.	2.40E-03	2.44E-03	1.63E-02	0.47E-03	2.96E-02
56	5.30	0.	0.	0.	1.10E-06	4.32E-05	0.	0.	2.42E-03	2.50E-03	1.67E-02	0.63E-03	3.03E-02
57	5.19	0.	0.	0.	1.17E-06	5.00E-05	0.	0.	2.46E-03	2.74E-03	1.72E-02	0.70E-03	3.11E-02
58	5.13	0.	0.	0.	1.07E-06	5.10E-05	0.	0.	2.46E-03	2.91E-03	1.77E-02	0.94E-03	3.20E-02
59	4.90	1.30E-07	0.	0.	1.10E-06	5.41E-05	0.	0.	2.49E-03	3.09E-03	1.83E-02	0.12E-03	3.30E-02
60	4.80	2.50E-07	0.	0.	1.27E-06	5.24E-05	0.	0.	2.49E-03	3.29E-03	1.89E-02	0.31E-03	3.40E-02
61	4.70	3.45E-07	0.	0.	1.24E-06	4.73E-05	0.	0.	2.52E-03	3.70E-03	1.95E-02	0.55E-03	3.51E-02
62	4.60	4.71E-07	0.	0.	1.24E-06	4.31E-05	0.	0.	2.54E-03	3.70E-03	2.03E-02	0.90E-03	3.64E-02
63	4.50	4.92E-07	0.	1.19E-06	4.02E-05	3.23E-05	0.	0.	2.56E-03	4.00E-03	2.13E-02	1.30E-03	3.79E-02
64	4.40	5.71E-07	0.	1.17E-06	3.23E-05	0.	0.	0.	2.58E-03	4.29E-03	2.23E-02	1.83E-03	3.94E-02
65	4.30	4.89E-07	0.	1.15E-06	2.74E-05	0.	0.	0.	2.61E-03	4.58E-03	2.33E-02	1.80E-03	4.11E-02
66	4.20	4.59E-07	0.	1.16E-06	2.33E-05	0.	0.	0.	2.64E-03	4.87E-03	2.43E-02	1.80E-03	4.29E-02
67	4.11	4.24E-07	0.	1.16E-06	2.03E-05	0.	0.	0.	2.66E-03	5.16E-03	2.53E-02	1.80E-03	4.48E-02
68	4.00	3.49E-07	0.	1.09E-06	2.07E-05	0.	0.	0.	2.69E-03	5.45E-03	2.63E-02	1.80E-03	4.67E-02
69	3.90	3.28E-07	0.	2.52E-05	1.44E-05	8.93E-07	0.	0.	2.69E-03	5.74E-03	2.73E-02	1.80E-03	4.86E-02
70	3.80	3.08E-07	0.	3.97E-05	6.54E-05	1.07E-06	0.	0.	2.69E-03	6.03E-03	2.83E-02	1.80E-03	5.05E-02
71	3.70	3.10E-07	0.	4.20E-05	2.57E-05	8.97E-07	0.	0.	2.69E-03	6.32E-03	2.93E-02	1.80E-03	5.24E-02
72	3.60	2.84E-07	0.	2.69E-05	1.39E-04	9.71E-07	0.	0.	2.69E-03	6.61E-03	3.03E-02	1.80E-03	5.43E-02
73	3.50	2.63E-07	0.	3.90E-05	2.84E-04	7.98E-07	0.	0.	2.69E-03	6.90E-03	3.13E-02	1.80E-03	5.62E-02
74	3.40	2.40E-07	0.	2.40E-05	3.90E-05	8.48E-07	0.	0.	1.26E-03	9.35E-03	3.39E-02	0.44E-03	4.30E-02
75	3.30	1.91E-07	0.	2.45E-05	1.50E-04	6.71E-07	0.	0.	1.28E-03	1.37E-02	3.65E-02	7.66E-03	4.92E-02
76	3.20	1.63E-07	0.	1.60E-05	2.81E-04	7.02E-07	0.	0.	1.28E-03	1.15E-02	3.23E-02	7.71E-03	5.26E-02
77	3.10	1.51E-07	0.	1.24E-05	0.14E-05	6.60E-07	0.	0.	1.28E-03	1.24E-02	3.52E-02	8.34E-03	5.73E-02
78	3.00	1.40E-07	0.	7.91E-06	1.52E-04	6.17E-07	0.	0.	1.29E-03	1.30E-02	3.81E-02	9.01E-03	6.22E-02
79	2.90	1.17E-07	0.	4.68E-06	6.55E-05	4.65E-07	0.	0.	1.29E-03	1.51E-02	4.12E-02	9.71E-03	6.74E-02
80	2.80	1.21E-07	0.	2.24E-06	5.13E-05	3.10E-07	0.	0.	1.29E-03	1.49E-02	4.43E-02	1.05E-02	7.34E-02
81	2.70	7.71E-08	0.	1.05E-06	7.27E-05	1.71E-07	0.	0.	1.29E-03	1.85E-02	4.85E-02	1.14E-02	8.01E-02
82	2.60	3.50E-08	0.	9.15E-07	7.20E-06	7.44E-08	0.	0.	1.29E-03	2.11E-02	5.27E-02	1.22E-02	8.73E-02
83	2.50	2.50E-09	0.	7.63E-08	6.80E-06	1.76E-08	0.	0.	1.29E-03	2.36E-02	5.69E-02	1.30E-02	9.46E-02
84	2.40	0.	0.	2.64E-06	5.73E-06	1.86E-09	0.	0.	1.29E-03	2.61E-02	6.11E-02	1.38E-02	1.02E-01
85	2.30	0.	0.	8.41E-06	0.	0.	0.	0.	1.29E-03	3.15E-02	6.53E-02	1.46E-02	1.10E-01
86	2.20	0.	0.	2.19E-05	0.	0.	0.	0.	1.29E-03	3.84E-02	6.95E-02	1.54E-02	1.17E-01
87	2.10	0.	0.	3.95E-05	0.	0.	0.	0.	1.29E-03	4.53E-02	7.37E-02	1.62E-02	1.24E-01
88	2.00	0.	0.	4.61E-05	0.	0.	0.	0.	1.29E-03	5.22E-02	7.80E-02	1.70E-02	1.31E-01
89	1.90	0.	0.	6.10E-05	0.	0.	0.	0.	1.29E-03	5.91E-02	8.23E-02	1.78E-02	1.38E-01
90	1.80	0.	0.	5.10E-05	0.	0.	0.	0.	1.29E-03	6.60E-02	8.66E-02	1.86E-02	1.45E-01
91	1.70	0.	0.	6.02E-05	0.	0.	0.	0.	1.29E-03	7.29E-02	9.09E-02	1.94E-02	1.52E-01
92	1.60	0.	0.	4.43E-05	0.	0.	0.	0.	1.29E-03	7.98E-02	9.52E-02	2.02E-02	1.59E-01
93	1.50	0.	0.	5.12E-05	0.	0.	0.	0.	1.29E-03	8.67E-02	9.95E-02	2.10E-02	1.66E-01
94	1.40	0.	0.	5.15E-05	0.	0.	0.	0.	1.29E-03	9.36E-02	1.04E-01	2.18E-02	1.73E-01
95	1.30	0.	0.	3.94E-05	0.	0.	0.	0.	1.29E-03	1.00E-01	1.08E-01	2.26E-02	1.80E-01
96	1.20	0.	0.	3.70E-05	0.	0.	0.	0.	1.29E-03	1.07E-01	1.12E-01	2.34E-02	1.87E-01
97	1.10	0.	0.	3.54E-05	0.	0.	0.	0.	1.29E-03	1.14E-01	1.16E-01	2.42E-02	1.94E-01
98	1.00	0.	0.	3.29E-05	0.	0.	0.	0.	1.29E-03	1.21E-01	1.20E-01	2.50E-02	2.01E-01
99	0.90	0.	0.	2.47E-05	0.	0.	0.	0.	1.29E-03	1.28E-01	1.24E-01	2.58E-02	2.08E-01
100	0.80	0.	0.	1.26E-05	0.	0.	0.	0.	1.29E-03	1.35E-01	1.28E-01	2.66E-02	2.15E-01
101	0.70	0.	0.	3.00E-06	0.	0.	0.	0.	1.29E-03	1.42E-01	1.32E-01	2.74E-02	2.22E-01
102	0.60	0.	0.	4.01E-07	0.	0.	0.	0.	1.29E-03	1.49E-01	1.36E-01	2.82E-02	2.29E-01

ABSORPTION COEFFICIENTS HEATED AIR (INVERSE CM.)
TEMPERATURE (DEGREES K) 14000. DENSITY (GM/CC) 1.293E-05 (10.0E-03 NORMAL)

PHOTON D2 S-R ENERGY BANDS E.V.	D2 S-R CONT.	NO NO. 1	NO BETA	NO GAMMA	NO 2	0- PHOTO-DET (1/MS)	REF-FREE P.E.	0 P.E.	TOTAL AIR
1 10.70 0.	0.	0.	0.	0.	0.	3.46E-05	1.44E-05	1.00E-01	5.01E-04
2 10.60 0.	0.	0.	0.	0.	0.	3.46E-05	1.71E-05	1.01E-03	5.00E-04
3 10.50 0.	0.	0.	0.	0.	0.	3.47E-05	1.74E-05	1.02E-03	4.99E-04
4 10.40 0.	0.	0.	0.	0.	0.	3.47E-05	1.01E-05	1.03E-03	4.98E-04
5 10.30 0.	0.	0.	0.	0.	0.	3.48E-05	1.04E-05	1.04E-03	4.97E-04
6 10.20 0.	0.	0.	0.	0.	0.	3.48E-05	1.07E-05	1.05E-03	4.96E-04
7 10.10 0.	0.	0.	0.	0.	0.	3.49E-05	1.09E-05	1.06E-03	4.95E-04
8 10.00 0.	0.	0.	0.	0.	0.	3.49E-05	1.09E-05	1.06E-03	4.95E-04
9 9.90 0.	0.	0.	0.	0.	0.	3.50E-05	1.10E-05	1.07E-03	4.94E-04
10 9.80 0.	0.	0.	0.	0.	0.	3.51E-05	1.11E-05	1.08E-03	4.93E-04
11 9.70 0.	0.	0.	0.	0.	0.	3.52E-05	1.12E-05	1.09E-03	4.92E-04
12 9.60 0.	0.	0.	0.	0.	0.	3.52E-05	1.12E-05	1.09E-03	4.92E-04
13 9.50 0.	0.	0.	0.	0.	0.	3.53E-05	1.13E-05	1.10E-03	4.91E-04
14 9.40 0.	0.	0.	0.	0.	0.	3.54E-05	1.14E-05	1.11E-03	4.90E-04
15 9.30 0.	0.	0.	0.	0.	0.	3.55E-05	1.15E-05	1.12E-03	4.89E-04
16 9.20 0.	0.	0.	0.	0.	0.	3.56E-05	1.16E-05	1.13E-03	4.88E-04
17 9.10 0.	0.	0.	0.	0.	0.	3.57E-05	1.17E-05	1.14E-03	4.87E-04
18 9.00 0.	0.	0.	0.	0.	0.	3.58E-05	1.18E-05	1.15E-03	4.86E-04
19 8.90 0.	0.	0.	0.	0.	0.	3.59E-05	1.19E-05	1.16E-03	4.85E-04
20 8.80 0.	0.	0.	0.	0.	0.	3.60E-05	1.20E-05	1.17E-03	4.84E-04
21 8.70 0.	0.	0.	0.	0.	0.	3.61E-05	1.21E-05	1.18E-03	4.83E-04
22 8.60 0.	0.	0.	0.	0.	0.	3.62E-05	1.22E-05	1.19E-03	4.82E-04
23 8.50 0.	0.	0.	0.	0.	0.	3.63E-05	1.23E-05	1.20E-03	4.81E-04
24 8.40 0.	0.	0.	0.	0.	0.	3.64E-05	1.24E-05	1.21E-03	4.80E-04
25 8.30 0.	0.	0.	0.	0.	0.	3.65E-05	1.25E-05	1.22E-03	4.79E-04
26 8.20 0.	0.	0.	0.	0.	0.	3.66E-05	1.26E-05	1.23E-03	4.78E-04
27 8.10 0.	0.	0.	0.	0.	0.	3.67E-05	1.27E-05	1.24E-03	4.77E-04
28 8.00 0.	0.	0.	0.	0.	0.	3.68E-05	1.28E-05	1.25E-03	4.76E-04
29 7.90 0.	0.	0.	0.	0.	0.	3.69E-05	1.29E-05	1.26E-03	4.75E-04
30 7.80 0.	0.	0.	0.	0.	0.	3.70E-05	1.30E-05	1.27E-03	4.74E-04
31 7.70 0.	0.	0.	0.	0.	0.	3.71E-05	1.31E-05	1.28E-03	4.73E-04
32 7.60 0.	0.	0.	0.	0.	0.	3.72E-05	1.32E-05	1.29E-03	4.72E-04
33 7.50 0.	0.	0.	0.	0.	0.	3.73E-05	1.33E-05	1.30E-03	4.71E-04
34 7.40 0.	0.	0.	0.	0.	0.	3.74E-05	1.34E-05	1.31E-03	4.70E-04
35 7.30 0.	0.	0.	0.	0.	0.	3.75E-05	1.35E-05	1.32E-03	4.69E-04
36 7.20 0.	0.	0.	0.	0.	0.	3.76E-05	1.36E-05	1.33E-03	4.68E-04
37 7.10 0.	0.	0.	0.	0.	0.	3.77E-05	1.37E-05	1.34E-03	4.67E-04
38 7.00 0.	0.	0.	0.	0.	0.	3.78E-05	1.38E-05	1.35E-03	4.66E-04
39 6.90 0.	0.	0.	0.	0.	0.	3.79E-05	1.39E-05	1.36E-03	4.65E-04
40 6.80 0.	0.	0.	0.	0.	0.	3.80E-05	1.40E-05	1.37E-03	4.64E-04
41 6.70 0.	0.	0.	0.	0.	0.	3.81E-05	1.41E-05	1.38E-03	4.63E-04
42 6.60 0.	0.	0.	0.	0.	0.	3.82E-05	1.42E-05	1.39E-03	4.62E-04
43 6.50 0.	0.	0.	0.	0.	0.	3.83E-05	1.43E-05	1.40E-03	4.61E-04
44 6.40 0.	0.	0.	0.	0.	0.	3.84E-05	1.44E-05	1.41E-03	4.60E-04
45 6.30 0.	0.	0.	0.	0.	0.	3.85E-05	1.45E-05	1.42E-03	4.59E-04
46 6.20 0.	0.	0.	0.	0.	0.	3.86E-05	1.46E-05	1.43E-03	4.58E-04
47 6.10 0.	0.	0.	0.	0.	0.	3.87E-05	1.47E-05	1.44E-03	4.57E-04
48 6.00 0.	0.	0.	0.	0.	0.	3.88E-05	1.48E-05	1.45E-03	4.56E-04
49 5.90 0.	0.	0.	0.	0.	0.	3.89E-05	1.49E-05	1.46E-03	4.55E-04
50 5.80 0.	0.	0.	0.	0.	0.	3.90E-05	1.50E-05	1.47E-03	4.54E-04
51 5.70 0.	0.	0.	0.	0.	0.	3.91E-05	1.51E-05	1.48E-03	4.53E-04

PHOTON Q	S-R	E-ENERGY	HANDS	1ST POS.	2ND POS.	W2	W2	1ST NEG.	W2	METL	W3	Q-AMMA	W3	VIB-MOT	W3	MO	O- PHOTO-DET	FREF-FREE	N	P.E.	Q	TOTAL AIR
52	5.60	1.45E-17	0.	0.	0.	0.	0.	3.51E-09	2.27E-08	0.	0.	0.	0.	0.	0.	0.	3.69E-05	1.17E-04	8.42E-04	5.33E-04	1.53E-03	
53	5.60	0.	0.	0.	0.	0.	0.	4.20E-06	2.11E-08	0.	0.	0.	0.	0.	0.	0.	3.77E-05	1.24E-04	8.60E-04	5.39E-04	1.56E-03	
54	5.60	0.	0.	0.	0.	0.	0.	3.69E-09	1.66E-08	0.	0.	0.	0.	0.	0.	0.	3.73E-05	1.31E-04	8.93E-04	5.46E-04	1.68E-03	
55	5.60	0.	0.	0.	0.	0.	0.	0.95E-09	2.10E-08	0.	0.	0.	0.	0.	0.	0.	3.76E-05	1.36E-04	9.03E-04	5.54E-04	1.63E-03	
56	5.60	0.	0.	0.	0.	0.	0.	4.27E-09	1.97E-08	0.	0.	0.	0.	0.	0.	0.	3.78E-05	1.47E-04	9.29E-04	5.65E-04	1.67E-03	
57	5.60	0.	0.	0.	0.	0.	0.	4.29E-09	2.83E-08	0.	0.	0.	0.	0.	0.	0.	3.81E-05	1.56E-04	9.52E-04	5.75E-04	1.72E-03	
58	5.60	2.40E-10	0.	0.	0.	0.	0.	3.07E-09	1.80E-08	0.	0.	0.	0.	0.	0.	0.	3.84E-05	1.65E-04	9.81E-04	5.86E-04	1.77E-03	
59	4.93	5.94E-10	0.	0.	0.	0.	0.	4.29E-09	2.04E-08	0.	0.	0.	0.	0.	0.	0.	3.88E-05	1.76E-04	1.01E-03	5.97E-04	1.82E-03	
60	4.80	1.11E-09	0.	0.	0.	0.	0.	4.59E-09	1.90E-08	0.	0.	0.	0.	0.	0.	0.	3.91E-05	1.87E-04	1.05E-03	6.09E-04	1.88E-03	
61	4.70	1.40E-09	0.	0.	0.	0.	0.	4.90E-09	1.72E-08	0.	0.	0.	0.	0.	0.	0.	3.94E-05	1.99E-04	1.08E-03	6.25E-04	1.95E-03	
62	4.67	4.60	2.02E-09	0.	0.	0.	0.	4.67E-09	1.96E-08	0.	0.	0.	0.	0.	0.	0.	3.97E-05	2.13E-04	1.13E-03	6.41E-04	2.02E-03	
63	4.50	2.11E-09	0.	0.	0.	0.	0.	4.24E-09	1.17E-08	0.	0.	0.	0.	0.	0.	0.	4.00E-05	2.27E-04	1.18E-03	6.58E-04	2.11E-03	
64	4.40	2.23E-09	0.	0.	0.	0.	0.	4.24E-09	8.13E-09	0.	0.	0.	0.	0.	0.	0.	4.04E-05	2.43E-04	1.24E-03	6.75E-04	2.19E-03	
65	4.30	2.10E-09	0.	0.	0.	0.	0.	4.02E-09	5.94E-09	0.	0.	0.	0.	0.	0.	0.	4.07E-05	2.61E-04	1.30E-03	6.92E-04	2.29E-03	
66	4.20	1.95E-09	0.	0.	0.	0.	0.	4.23E-09	3.61E-09	0.	0.	0.	0.	0.	0.	0.	4.10E-05	2.80E-04	1.36E-03	7.10E-04	2.39E-03	
67	4.19	1.82E-09	0.	0.	0.	0.	0.	4.07E-09	9.90E-10	0.	0.	0.	0.	0.	0.	0.	4.12E-05	3.02E-04	1.42E-03	7.15E-04	2.47E-03	
68	4.10	1.67E-09	0.	0.	0.	0.	0.	1.68E-07	0.	0.	0.	0.	0.	0.	0.	0.	4.13E-05	3.29E-04	1.48E-03	7.26E-04	2.57E-03	
69	4.00	1.41E-09	0.	0.	0.	0.	0.	7.74E-08	2.90E-10	0.	0.	0.	0.	0.	0.	0.	4.12E-05	3.51E-04	1.41E-03	7.24E-04	2.60E-03	
70	3.93	1.54E-09	0.	0.	0.	0.	0.	1.22E-07	8.44E-09	0.	0.	0.	0.	0.	0.	0.	4.10E-05	3.80E-04	1.44E-03	7.28E-04	2.65E-03	
71	3.73	1.10E-09	0.	0.	0.	0.	0.	1.11E-07	3.5E-07													

PHOTO#	02 S-R	02 S-R	02 S-R	02 S-R	NO	NO	NO	NO	0-	0-	0	0	TOTAL
NO	CONT.	HANDS	NO. 1	NO. 2	0274	GAMMA	0274	NO	PHOTO-DET (FPS)	FREQ-FREQ	N	P.F.	AD
E.V.													
1	10.79	0.	0.	0.	0.	0.	0.	0.	1.41E-07	4.10E-07	4.67E-05	1.47E-05	6.20E-05
2	10.60	0.	0.	0.	0.	0.	0.	0.	1.42E-07	4.31E-07	4.69E-05	1.47E-05	6.22E-05
3	10.54	0.	0.	0.	0.	0.	0.	0.	1.43E-07	4.40E-07	4.71E-05	1.46E-05	6.23E-05
4	10.49	0.	0.	0.	0.	0.	0.	0.	1.43E-07	4.57E-07	4.73E-05	1.46E-05	6.23E-05
5	10.30	0.	0.	0.	0.	0.	0.	0.	1.43E-07	4.70E-07	4.74E-05	1.45E-05	6.24E-05
6	10.20	0.	0.	0.	0.	0.	0.	0.	1.43E-07	4.84E-07	4.75E-05	1.45E-05	6.24E-05
7	10.16	0.	0.	0.	0.	0.	0.	0.	1.43E-07	4.99E-07	4.76E-05	1.44E-05	6.24E-05
8	10.08	0.	0.	0.	0.	0.	0.	0.	1.43E-07	5.14E-07	4.74E-05	1.44E-05	6.24E-05
9	9.90	0.	0.	0.	0.	0.	0.	0.	1.43E-07	5.30E-07	4.75E-05	1.43E-05	6.24E-05
10	9.84	0.	0.	0.	0.	0.	0.	0.	1.44E-07	5.46E-07	4.76E-05	1.43E-05	6.24E-05
11	9.70	0.	0.	0.	0.	0.	0.	0.	1.44E-07	5.63E-07	4.77E-05	1.42E-05	6.24E-05
12	9.60	0.	0.	0.	0.	0.	0.	0.	1.44E-07	5.80E-07	4.78E-05	1.42E-05	6.24E-05
13	9.50	0.	0.	0.	0.	0.	0.	0.	1.45E-07	5.98E-07	4.79E-05	1.41E-05	6.24E-05
14	9.40	0.	0.	0.	0.	0.	0.	0.	1.45E-07	6.16E-07	4.81E-05	1.41E-05	6.24E-05
15	9.30	0.	0.	0.	0.	0.	0.	0.	1.46E-07	6.34E-07	4.82E-05	1.40E-05	6.24E-05
16	9.20	0.	0.	0.	0.	0.	0.	0.	1.46E-07	6.52E-07	4.83E-05	1.40E-05	6.24E-05
17	9.10	0.	0.	0.	0.	0.	0.	0.	1.47E-07	6.70E-07	4.84E-05	1.39E-05	6.24E-05
18	9.00	0.	0.	0.	0.	0.	0.	0.	1.47E-07	6.88E-07	4.85E-05	1.39E-05	6.24E-05
19	8.90	0.	0.	0.	0.	0.	0.	0.	1.48E-07	7.06E-07	4.86E-05	1.38E-05	6.24E-05
20	8.80	0.	0.	0.	0.	0.	0.	0.	1.48E-07	7.24E-07	4.87E-05	1.38E-05	6.24E-05
21	8.70	0.	0.	0.	0.	0.	0.	0.	1.49E-07	7.42E-07	4.88E-05	1.37E-05	6.24E-05
22	8.60	0.	0.	0.	0.	0.	0.	0.	1.49E-07	7.60E-07	4.89E-05	1.37E-05	6.24E-05
23	8.50	0.	0.	0.	0.	0.	0.	0.	1.50E-07	7.78E-07	4.90E-05	1.36E-05	6.24E-05
24	8.40	0.	0.	0.	0.	0.	0.	0.	1.50E-07	7.96E-07	4.91E-05	1.36E-05	6.24E-05
25	8.30	0.	0.	0.	0.	0.	0.	0.	1.51E-07	8.14E-07	4.92E-05	1.35E-05	6.24E-05
26	8.20	0.	0.	0.	0.	0.	0.	0.	1.51E-07	8.32E-07	4.93E-05	1.35E-05	6.24E-05
27	8.10	0.	0.	0.	0.	0.	0.	0.	1.52E-07	8.50E-07	4.94E-05	1.34E-05	6.24E-05
28	8.00	0.	0.	0.	0.	0.	0.	0.	1.52E-07	8.68E-07	4.95E-05	1.34E-05	6.24E-05
29	7.90	0.	0.	0.	0.	0.	0.	0.	1.53E-07	8.86E-07	4.96E-05	1.33E-05	6.24E-05
30	7.80	0.	0.	0.	0.	0.</							

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES C) 14000 DENSITY (GM/CC) 1.293E-07 (110.0E-05 NORMAL)

PHOTON ENERGY E.V.	Q2 S-M RANGE	Q2 S-M CONT.	W D	BETA	W D	GAMMA	NO	2	PHOTO-DET (IPES)	Q- FREE-FREE	N	P.E.	Q	TOTAL AIR P.E.
1 16.70 0.			6.00E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
2 10.60 0.			5.90E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
3 10.50 0.			5.80E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
4 10.40 0.			5.71E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
5 10.30 0.			5.61E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
6 10.20 0.			5.52E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
7 10.10 0.			5.43E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
8 10.00 0.			5.34E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
9 9.90 0.			5.25E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
10 9.80 0.			5.16E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
11 9.70 0.			5.07E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
12 9.60 0.			4.98E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
13 9.50 0.			4.89E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
14 9.40 0.			4.80E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
15 9.30 0.			4.71E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
16 9.20 0.			4.62E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
17 9.10 0.			4.53E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
18 9.00 0.			4.44E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
19 8.90 0.			4.35E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
20 8.80 0.			4.26E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
21 8.70 0.			4.17E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
22 8.60 0.			4.08E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
23 8.50 0.			4.00E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
24 8.40 0.			3.91E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
25 8.30 0.			3.82E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
26 8.20 0.			3.73E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
27 8.10 0.			3.64E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
28 8.00 0.			3.55E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
29 7.90 0.			3.46E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
30 7.80 0.			3.37E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
31 7.70 0.			3.28E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
32 7.60 0.			3.19E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
33 7.50 0.			3.10E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
34 7.40 0.			3.01E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
35 7.30 0.			2.92E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
36 7.20 0.			2.83E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
37 7.10 0.			2.74E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
38 7.00 0.			2.65E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
39 6.90 0.			2.56E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
40 6.80 0.			2.47E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
41 6.70 0.			2.38E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
42 6.60 0.			2.29E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
43 6.50 0.			2.20E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
44 6.40 0.			2.11E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
45 6.30 0.			2.02E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
46 6.20 0.			1.93E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
47 6.10 0.			1.84E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
48 6.00 0.			1.75E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
49 5.90 0.			1.66E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
50 5.80 0.			1.57E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	
51 5.70 0.			1.48E-14	0.	0.	0.	0.	0.	2.33E-10	5.20E-09	4.00E-07	1.71E-07	7.00E-07	

ADSORPTION COEFFICIENT OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 10000.		MOISTURE (CM/CC) 1.2775-00 (1.0E-05 NORMAL)		MO		PHOTO-DEF (11-05)		P.E.		TOTAL AIR	
PHOTON Q2 S-R	Q2 S-R	Q2 S-R	Q2 S-R	MO	MO	MO	MO	P.E.	P.E.	P.E.	P.E.
ENERGY RANGE	CMPT.	CMPT.	CMPT.	MO	MO	MO	MO	P.E.	P.E.	P.E.	P.E.
E.V.											
1 10.70 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	5.41E-11	0.34E-09	1.90E-09
2 10.80 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	5.97E-11	0.37E-09	1.90E-09
3 10.90 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	6.53E-11	0.40E-09	1.90E-09
4 10.95 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	7.09E-11	0.42E-09	1.90E-09
5 11.00 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	7.65E-11	0.45E-09	1.90E-09
6 11.05 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	8.21E-11	0.47E-09	1.90E-09
7 11.10 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	8.77E-11	0.50E-09	1.90E-09
8 11.15 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	9.33E-11	0.52E-09	1.90E-09
9 11.20 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	9.89E-11	0.55E-09	1.90E-09
10 11.25 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.045E-10	0.57E-09	1.90E-09
11 11.30 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.101E-10	0.60E-09	1.90E-09
12 11.35 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.157E-10	0.62E-09	1.90E-09
13 11.40 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.213E-10	0.65E-09	1.90E-09
14 11.45 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.269E-10	0.67E-09	1.90E-09
15 11.50 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.325E-10	0.70E-09	1.90E-09
16 11.55 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.381E-10	0.72E-09	1.90E-09
17 11.60 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.437E-10	0.75E-09	1.90E-09
18 11.65 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.493E-10	0.77E-09	1.90E-09
19 11.70 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.549E-10	0.80E-09	1.90E-09
20 11.75 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.605E-10	0.82E-09	1.90E-09
21 11.80 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.661E-10	0.85E-09	1.90E-09
22 11.85 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.717E-10	0.87E-09	1.90E-09
23 11.90 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.773E-10	0.90E-09	1.90E-09
24 11.95 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.829E-10	0.92E-09	1.90E-09
25 12.00 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.885E-10	0.95E-09	1.90E-09
26 12.05 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.941E-10	0.97E-09	1.90E-09
27 12.10 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	1.997E-10	1.00E-09	1.90E-09
28 12.15 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	2.053E-10	1.02E-09	1.90E-09
29 12.20 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	2.109E-10	1.05E-09	1.90E-09
30 12.25 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	2.165E-10	1.07E-09	1.90E-09
31 12.30 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	2.221E-10	1.10E-09	1.90E-09
32 12.35 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	2.277E-10	1.12E-09	1.90E-09
33 12.40 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	2.333E-10	1.15E-09	1.90E-09
34 12.45 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	2.389E-10	1.17E-09	1.90E-09
35 12.50 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	2.445E-10	1.20E-09	1.90E-09
36 12.55 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	2.501E-10	1.22E-09	1.90E-09
37 12.60 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	2.557E-10	1.25E-09	1.90E-09
38 12.65 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	2.613E-10	1.27E-09	1.90E-09
39 12.70 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	2.669E-10	1.30E-09	1.90E-09
40 12.75 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	2.725E-10	1.32E-09	1.90E-09
41 12.80 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	2.781E-10	1.35E-09	1.90E-09
42 12.85 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	2.837E-10	1.37E-09	1.90E-09
43 12.90 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	2.893E-10	1.40E-09	1.90E-09
44 12.95 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	2.949E-10	1.42E-09	1.90E-09
45 13.00 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	3.005E-10	1.45E-09	1.90E-09
46 13.05 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	3.061E-10	1.47E-09	1.90E-09
47 13.10 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	3.117E-10	1.50E-09	1.90E-09
48 13.15 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	3.173E-10	1.52E-09	1.90E-09
49 13.20 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	3.229E-10	1.55E-09	1.90E-09
50 13.25 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	3.285E-10	1.57E-09	1.90E-09
51 13.30 0.	0.	0.	0.	0.	0.	0.	0.	2.40E-13	3.341E-10	1.60E-09	1.90E-09

1.05-02 NORMAL

EXP-FIVE (1948)	W P.E.	Q P.E.	TOTAL ALL P.E.
1	1	1	2
2	2	2	4
3	3	3	6
4	4	4	8
5	5	5	10
6	6	6	12
7	7	7	14
8	8	8	16
9	9	9	18
10	10	10	20
11	11	11	22
12	12	12	24
13	13	13	26
14	14	14	28
15	15	15	30
16	16	16	32
17	17	17	34
18	18	18	36
19	19	19	38
20	20	20	40
21	21	21	42
22	22	22	44
23	23	23	46
24	24	24	48
25	25	25	50
26	26	26	52
27	27	27	54
28	28	28	56
29	29	29	58
30	30	30	60
31	31	31	62
32	32	32	64
33	33	33	66
34	34	34	68
35	35	35	70
36	36	36	72
37	37	37	74
38	38	38	76
39	39	39	78
40	40	40	80
41	41	41	82
42	42	42	84
43	43	43	86
44	44	44	88
45	45	45	90
46	46	46	92
47	47	47	94
48	48	48	96
49	49	49	98
50	50	50	100

106-15	1,094-10	2,125-11	1,315-10
306-13	1,105-13	2,127-11	1,326-10
506-13	1,106-10	2,127-11	1,326-10
706-13	1,107-10	2,127-11	1,326-10
906-13	1,108-10	2,127-11	1,326-10
1106-13	1,109-10	2,127-11	1,326-10
1306-13	1,110-10	2,127-11	1,326-10
1506-13	1,111-10	2,127-11	1,326-10
1706-13	1,112-10	2,127-11	1,326-10
1906-13	1,113-10	2,127-11	1,326-10
2106-13	1,114-10	2,127-11	1,326-10
2306-13	1,115-10	2,127-11	1,326-10
2506-13	1,116-10	2,127-11	1,326-10
2706-13	1,117-10	2,127-11	1,326-10
2906-13	1,118-10	2,127-11	1,326-10
3106-13	1,119-10	2,127-11	1,326-10
3306-13	1,120-10	2,127-11	1,326-10
3506-13	1,121-10	2,127-11	1,326-10
3706-13	1,122-10	2,127-11	1,326-10
3906-13	1,123-10	2,127-11	1,326-10
4106-13	1,124-10	2,127-11	1,326-10
4306-13	1,125-10	2,127-11	1,326-10
4506-13	1,126-10	2,127-11	1,326-10
4706-13	1,127-10	2,127-11	1,326-10
4906-13	1,128-10	2,127-11	1,326-10
5106-13	1,129-10	2,127-11	1,326-10
5306-13	1,130-10	2,127-11	1,326-10
5506-13	1,131-10	2,127-11	1,326-10
5706-13	1,132-10	2,127-11	1,326-10
5906-13	1,133-10	2,127-11	1,326-10
6106-13	1,134-10	2,127-11	1,326-10
6306-13	1,135-10	2,127-11	1,326-10
6506-13	1,136-10	2,127-11	1,326-10
6706-13	1,137-10	2,127-11	1,326-10
6906-13	1,138-10	2,127-11	1,326-10
7106-13	1,139-10	2,127-11	1,326-10
7306-13	1,140-10	2,127-11	1,326-10
7506-13	1,141-10	2,127-11	1,326-10
7706-13	1,142-10	2,127-11	1,326-10
7906-13	1,143-10	2,127-11	1,326-10
8106-13	1,144-10	2,127-11	1,326-10
8306-13	1,145-10	2,127-11	1,326-10
8506-13	1,146-10	2,127-11	1,326-10
8706-13	1,147-10	2,127-11	1,326-10
8906-13	1,148-10	2,127-11	1,326-10
9106-13	1,149-10	2,127-11	1,326-10
9306-13	1,150-10	2,127-11	1,326-10
9506-13	1,151-10	2,127-11	1,326-10
9706-13	1,152-10	2,127-11	1,326-10
9906-13	1,153-10	2,127-11	1,326-10
10106-13	1,154-10	2,127-11	1,326-10
10306-13	1,155-10	2,127-11	1,326-10
10506-13	1,156-10	2,127-11	1,326-10
10706-13	1,157-10	2,127-11	1,326-10
10906-13	1,158-10	2,127-11	1,326-10
11106-13	1,159-10	2,127-11	1,326-10
11306-13	1,160-10	2,127-11	1,326-10
11506-13	1,161-10	2,127-11	1,326-10
11706-13	1,162-10	2,127-11	1,326-10
11906-13	1,163-10	2,127-11	1,326-10
12106-13	1,164-10	2,127-11	1,326-10
12306-13	1,165-10	2,127-11	1,326-10
12506-13	1,166-10	2,127-11	1,326-10
12706-13	1,167-10	2,127-11	1,326-10
12906-13	1,168-10	2,127-11	1,326-10
13106-13	1,169-10	2,127-11	1,326-10
13306-13	1,170-10	2,127-11	1,326-10
13506-13	1,171-10	2,127-11	1,326-10
13706-13	1,172-10	2,127-11	1,326-10
13906-13	1,173-10	2,127-11	1,326-10
14106-13	1,174-10	2,127-11	1,326-10
14306-13	1,175-10</		

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 17000.		DENSITY (GM/CC) 1.293E-02 (1.0F 81 NORMAL)		O- FREF-FRES		M		O		TOTAL AIR	
PWOI W 02 S-9		02 S-W		NO		2		P.F.		P.F.	
ENERGY BANDS		COMT.		NO		GAMMA		P.F.		P.F.	
E.V.		NO. 1		NO		GAMMA		P.F.		P.F.	
1 10.73 0.	0.	2.10F 03	0.	0.	0.	0.	0.	0.	0.	0.	0.
2 10.64 0.	0.	1.90F 00	0.	0.	0.	0.	0.	0.	0.	0.	0.
3 10.59 0.	0.	1.92F 00	0.	0.	0.	0.	0.	0.	0.	0.	0.
4 10.48 0.	0.	1.91F 00	0.	0.	0.	0.	0.	0.	0.	0.	0.
5 10.31 0.	0.	1.90F 00	0.	0.	0.	0.	0.	0.	0.	0.	0.
6 10.23 0.	0.	1.63F 00	0.	0.	0.	0.	0.	0.	0.	0.	0.
7 10.19 0.	0.	1.53F 00	0.	0.	0.	0.	0.	0.	0.	0.	0.
8 10.09 0.	0.	1.34F 00	0.	0.	0.	0.	0.	0.	0.	0.	0.
9 9.91 0.	0.	1.37F 00	0.	0.	0.	0.	0.	0.	0.	0.	0.
10 9.81 0.	0.	1.29F 00	0.	0.	0.	0.	0.	0.	0.	0.	0.
11 9.71 0.	0.	1.11F 00	0.	0.	0.	0.	0.	0.	0.	0.	0.
12 9.51 0.	0.	1.20F 00	0.	0.	0.	0.	0.	0.	0.	0.	0.
13 9.31 0.	0.	1.02F 00	0.	0.	0.	0.	0.	0.	0.	0.	0.
14 9.11 0.	0.	9.62E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
15 8.91 0.	0.	9.05E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
16 8.71 0.	0.	8.14E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
17 8.51 0.	0.	8.35E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
18 8.31 0.	0.	7.50E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
19 8.11 0.	0.	6.99E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
20 7.91 0.	0.	6.86E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
21 7.71 0.	0.	5.94E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
22 7.51 0.	0.	6.11E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
23 7.31 0.	0.	5.34E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
24 7.11 0.	0.	5.30E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
25 6.91 0.	0.	4.49E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
26 6.71 0.	0.	4.53E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
27 6.51 0.	0.	3.90E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
28 6.31 0.	0.	3.92E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
29 6.11 0.	0.	3.37E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
30 5.91 0.	0.	3.49E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
31 5.71 0.	0.	3.05E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
32 5.51 0.	0.	2.67E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
33 5.31 0.	0.	2.59E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
34 5.11 0.	0.	2.26E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
35 4.91 0.	0.	2.04E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
36 4.71 0.	0.	1.95E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
37 4.51 0.	0.	1.79E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
38 4.31 0.	0.	1.79E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
39 4.11 0.	0.	1.64E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
40 3.91 0.	0.	1.57E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
41 3.71 0.	0.	1.57E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
42 3.51 0.	0.	1.23E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.
43 3.31 0.	0.	9.74E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.
44 3.11 0.	0.	8.72E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.
45 2.91 0.	0.	4.17E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.
46 2.71 0.	0.	2.30E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.
47 2.51 0.	0.	1.08E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.
48 2.31 0.	0.	2.73E-03	0.	0.	0.	0.	0.	0.	0.	0.	0.
49 2.11 0.	0.	1.95E-04	0.	0.	0.	0.	0.	0.	0.	0.	0.
50 1.91 0.	0.	4.92E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.
51 1.71 0.	0.	5.73 9.49E-10	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENT OF HEATED AIR (INVERSE CM.)									
TEMPERATURE (DEGREES K) 17000.									
PHOTON ENERGY E.V.	Q2 S-R HANDS	Q2 S-R COMT.	W2 R-W NO. 1	NO		0- FREQ-FREE P.E.	N	O	TOTAL AIR
				MEGA	GAUSS				
1 19.70 0.	0.	0.	1.90E-02	0.	0.	9.94E-02	0.54E-03	2.51E-01	1.35E-01 2.54E-01
2 19.60 0.	0.	0.	1.73E-02	0.	0.	9.96E-02	0.73E-03	6.17E-01	1.34E-01 8.74E-01
3 19.50 0.	0.	0.	1.74E-02	0.	0.	9.97E-02	0.61E-03	1.19E-01	1.34E-01 8.77E-01
4 19.40 0.	0.	0.	1.65E-02	0.	0.	9.98E-02	7.12E-03	6.22E-01	1.33E-01 8.78E-01
5 19.30 0.	0.	0.	1.43E-02	0.	0.	10.00E-02	7.33E-03	6.23E-01	1.33E-01 8.77E-01
6 19.20 0.	0.	0.	1.40E-02	0.	0.	1.00E-01	7.55E-03	6.25E-01	1.32E-01 8.79E-01
7 19.10 0.	0.	0.	1.39E-02	0.	0.	1.00E-01	7.78E-03	6.25E-01	1.32E-01 8.78E-01
8 19.00 0.	0.	0.	1.21E-02	0.	0.	1.00E-01	8.02E-03	6.28E-01	1.31E-01 8.78E-01
9 18.90 0.	0.	0.	1.51E-02	0.	0.	1.00E-01	8.24E-03	6.28E-01	1.31E-01 8.79E-01
10 18.80 0.	0.	0.	1.17E-02	0.	0.	1.01E-01	8.52E-03	6.24E-01	1.30E-01 8.80E-01
11 18.70 0.	0.	0.	1.01E-02	0.	0.	1.01E-01	8.79E-03	6.31E-01	1.30E-01 8.82E-01
12 18.60 0.	0.	0.	1.09E-02	0.	0.	1.01E-01	9.04E-03	6.32E-01	1.29E-01 8.82E-01
13 18.50 0.	0.	0.	9.26E-03	0.	0.	1.01E-01	9.34E-03	6.34E-01	1.29E-01 8.83E-01
14 18.40 0.	0.	0.	8.74E-03	0.	0.	1.02E-01	9.64E-03	6.36E-01	1.29E-01 8.84E-01
15 18.30 0.	0.	0.	8.40E-03	0.	0.	1.02E-01	9.94E-03	6.38E-01	1.29E-01 8.85E-01
16 18.20 0.	0.	0.	7.38E-03	0.	0.	1.02E-01	1.03E-02	6.40E-01	1.27E-01 8.87E-01
17 18.10 0.	0.	0.	7.48E-03	0.	0.	1.03E-01	1.07E-02	6.27E-01	1.27E-01 8.75E-01
18 18.00 0.	0.	0.	6.40E-03	0.	0.	1.03E-01	1.10E-02	6.29E-01	1.26E-01 8.75E-01
19 17.90 0.	0.	0.	6.35E-03	0.	0.	1.03E-01	1.14E-02	6.28E-01	1.26E-01 8.75E-01
20 17.80 0.	0.	0.	6.23E-03	0.	0.	1.04E-01	1.19E-02	6.28E-01	1.25E-01 8.75E-01
21 17.70 0.	0.	0.	5.39E-03	0.	0.	1.04E-01	1.22E-02	6.28E-01	1.25E-01 8.75E-01
22 17.60 0.	0.	0.	5.55E-03	0.	0.	1.05E-01	1.24E-02	6.28E-01	1.24E-01 8.76E-01
23 17.50 0.	0.	0.	4.85E-03	0.	0.	1.05E-01	1.31E-02	6.29E-01	1.24E-01 8.76E-01
24 17.40 0.	0.	0.	4.91E-03	0.	0.	1.05E-01	1.36E-02	6.30E-01	1.24E-01 8.77E-01
25 17.30 0.	0.	0.	4.07E-03	0.	0.	1.06E-01	1.41E-02	6.30E-01	1.23E-01 8.78E-01
26 17.20 0.	0.	0.	4.11E-03	0.	0.	1.07E-01	1.44E-02	6.31E-01	1.24E-01 8.80E-01
27 17.10 0.	0.	0.	3.94E-03	0.	0.	1.07E-01	1.52E-02	6.31E-01	1.24E-01 8.81E-01
28 17.00 0.	0.	0.	3.56E-03	0.	0.	1.08E-01	1.57E-02	6.32E-01	1.24E-01 8.84E-01
29 16.90 0.	0.	0.	3.05E-03	0.	0.	1.08E-01	1.63E-02	6.34E-01	1.25E-01 8.86E-01
30 16.80 0.	0.	0.	3.16E-03	0.	0.	1.09E-01	1.70E-02	6.35E-01	1.25E-01 8.89E-01
31 16.70 0.	0.	0.	2.77E-03	0.	0.	1.09E-01	1.77E-02	6.36E-01	1.25E-01 8.91E-01
32 16.60 0.	0.	0.	2.62E-03	0.	1.17E-07	1.10E-01	1.84E-02	6.38E-01	1.26E-01 8.94E-01
33 16.50 0.	0.	0.	2.42E-03	0.	4.11E-07	1.10E-01	1.91E-02	6.39E-01	1.26E-01 8.97E-01
34 16.40 0.	0.	0.	2.17E-03	0.	3.29E-06	1.11E-01	1.99E-02	6.40E-01	1.26E-01 9.00E-01
35 16.30 0.	0.	0.	2.05E-03	0.	1.33E-06	1.12E-01	2.08E-02	6.42E-01	1.26E-01 9.03E-01
36 16.20 0.	0.	0.	1.95E-03	0.	3.63E-05	1.12E-01	2.14E-02	6.43E-01	1.27E-01 9.06E-01
37 16.10 0.	0.	0.	1.77E-03	0.	1.17E-04	1.13E-01	2.24E-02	6.44E-01	1.27E-01 9.09E-01
38 16.00 0.	0.	0.	1.62E-03	0.	2.29E-04	1.14E-01	2.34E-02	6.45E-01	1.27E-01 9.13E-01
39 15.90 0.	0.	0.	1.49E-03	0.	3.09E-04	1.15E-01	2.44E-02	6.47E-01	1.28E-01 9.16E-01
40 15.80 0.	0.	0.	1.43E-03	0.	5.40E-04	1.16E-01	2.57E-02	6.48E-01	1.28E-01 9.20E-01
41 15.70 0.	0.	0.	1.25E-03	0.	5.51E-04	1.17E-01	2.69E-02	6.50E-01	1.28E-01 9.24E-01
42 15.60 0.	0.	0.	1.12E-03	0.	4.41E-04	1.18E-01	2.82E-02	6.52E-01	1.29E-01 9.28E-01
43 15.50 0.	0.	0.	8.68E-04	0.	6.61E-04	1.19E-01	2.95E-02	6.54E-01	1.29E-01 9.34E-01
44 15.40 0.	0.	0.	8.10E-04	0.	7.30E-04	1.20E-01	3.09E-02	6.57E-01	1.30E-01 9.39E-01
45 15.30 0.	0.	0.	3.70E-04	0.	1.11E-03	1.21E-01	3.24E-02	6.59E-01	1.31E-01 9.44E-01
46 15.20 0.	0.	0.	2.09E-04	0.	1.57E-03	1.21E-01	3.40E-02	6.62E-01	1.33E-01 9.50E-01
47 15.10 0.	0.	0.	9.77E-05	0.	4.47E-03	1.23E-01	3.57E-02	6.65E-01	1.33E-01 9.57E-01
48 15.00 0.	0.	0.	2.40E-05	0.	6.22E-03	1.23E-01	3.74E-02	6.68E-01	1.35E-01 9.64E-01
49 14.90 0.	0.	0.	1.77E-04	0.	6.22E-03	1.23E-01	3.95E-02	6.72E-01	1.34E-01 9.72E-01
50 14.80 0.	0.	0.	4.40E-08	0.	8.68E-05	1.23E-01	4.14E-02	6.76E-01	1.37E-01 9.77E-01
51 14.70 0.	0.	0.	8.41E-12	0.	1.01E-04	1.24E-01	4.34E-02	6.80E-01	1.39E-01 9.77E-01

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON ENERGY BANDS		TEMPERATURE (DEGREES K)	DENSITY (GM/CC)	1.2936-03	(1.0E 00 NORMAL)	TOTAL AIR	
PHOTON ENERGY BANDS	TEMPERATURE (DEGREES K)	DENSITY (GM/CC)	1.2936-03	(1.0E 00 NORMAL)	PHOTON-DET (TMS)	P.E.	P.E.
1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.
52	5.68	3.07E-13	0.	0.	0.	1.04E-01	4.63E-02
53	5.78	0.	0.	0.	0.	1.07E-01	4.80E-02
54	5.88	0.	0.	0.	0.	1.10E-01	5.15E-02
55	5.98	0.	0.	0.	0.	1.08E-01	5.15E-02
56	5.24	0.	0.	0.	0.	1.08E-01	5.15E-02
57	5.10	0.	0.	0.	0.	1.10E-01	5.15E-02
58	5.00	3.48E-10	0.	0.	0.	1.11E-01	5.15E-02
59	4.90	1.31E-05	0.	0.	0.	1.11E-01	5.15E-02
60	4.80	2.44E-05	0.	0.	0.	1.12E-01	5.15E-02
61	4.70	3.29E-05	0.	0.	0.	1.12E-01	5.15E-02
62	4.60	5.95E-05	0.	0.	0.	1.13E-01	5.15E-02
63	4.50	7.72E-05	0.	0.	0.	1.13E-01	5.15E-02
64	4.40	5.03E-05	0.	0.	0.	1.13E-01	5.15E-02
65	4.30	4.74E-05	0.	0.	0.	1.13E-01	5.15E-02
66	4.20	4.42E-05	0.	0.	0.	1.13E-01	5.15E-02
67	4.10	4.14E-05	0.	0.	0.	1.13E-01	5.15E-02
68	4.00	3.81E-05	0.	0.	0.	1.13E-01	5.15E-02
69	3.90	3.59E-05	0.	0.	0.	1.13E-01	5.15E-02
70	3.80	3.34E-05	0.	0.	0.	1.13E-01	5.15E-02
71	3.70	3.14E-05	0.	0.	0.	1.13E-01	5.15E-02
72	3.60	2.90E-05	0.	0.	0.	1.13E-01	5.15E-02
73	3.50	2.64E-05	0.	0.	0.	1.13E-01	5.15E-02
74	3.40	2.41E-05	0.	0.	0.	1.13E-01	5.15E-02
75	3.30	2.19E-05	0.	0.	0.	1.13E-01	5.15E-02
76	3.20	1.98E-05	0.	0.	0.	1.13E-01	5.15E-02
77	3.10	1.78E-05	0.	0.	0.	1.13E-01	5.15E-02
78	3.00	1.58E-05	0.	0.	0.	1.13E-01	5.15E-02
79	2.90	1.39E-05	0.	0.	0.	1.13E-01	5.15E-02
80	2.80	1.20E-05	0.	0.	0.	1.13E-01	5.15E-02
81	2.70	1.03E-05	0.	0.	0.	1.13E-01	5.15E-02
82	2.63	1.77E-06	0.	0.	0.	1.13E-01	5.15E-02
83	2.58	2.64E-07	0.	0.	0.	1.13E-01	5.15E-02
84	2.48	0.	0.	0.	0.	1.13E-01	5.15E-02
85	2.38	0.	0.	0.	0.	1.13E-01	5.15E-02
86	2.28	0.	0.	0.	0.	1.13E-01	5.15E-02
87	2.18	0.	0.	0.	0.	1.13E-01	5.15E-02
88	2.08	0.	0.	0.	0.	1.13E-01	5.15E-02
89	1.98	0.	0.	0.	0.	1.13E-01	5.15E-02
90	1.88	0.	0.	0.	0.	1.13E-01	5.15E-02
91	1.78	0.	0.	0.	0.	1.13E-01	5.15E-02
92	1.68	0.	0.	0.	0.	1.13E-01	5.15E-02
93	1.58	0.	0.	0.	0.	1.13E-01	5.15E-02
94	1.48	0.	0.	0.	0.	1.13E-01	5.15E-02
95	1.38	0.	0.	0.	0.	1.13E-01	5.15E-02
96	1.28	0.	0.	0.	0.	1.13E-01	5.15E-02
97	1.18	0.	0.	0.	0.	1.13E-01	5.15E-02
98	1.08	0.	0.	0.	0.	1.13E-01	5.15E-02
99	0.98	0.	0.	0.	0.	1.13E-01	5.15E-02
100	0.88	0.	0.	0.	0.	1.13E-01	5.15E-02
101	0.78	0.	0.	0.	0.	1.13E-01	5.15E-02
102	0.68	0.	0.	0.	0.	1.13E-01	5.15E-02

ABSORPTION COEFFICIENT OF HEATED AIR (INVERSE CM.)									
TEMPERATURE (DEGREES K) 17000. DENSITY (GM/CC) 1.293E-04 (1.0E-01 NORMAL)									
PHOTON ENERGY E.V.	Q2 S-M CONST.	Q2 B-W NO. 1	NO		O-		O		TOTAL AIR
			META	GAMMA	PHOTO-DEY (1/CM)	FREF-FREE P.E.	PHOTO-DEY (1/CM)	FREF-FREE P.E.	
1	10.70 0.	0.	0.	0.	0.	0.	2.31E-03	5.03E-04	1.91E-03 1.13E-02 1.03E-02
2	10.61 0.	0.	0.	0.	0.	0.	2.31E-03	5.19E-04	4.70E-02 1.12E-02 6.12E-02
3	10.58 0.	0.	0.	0.	0.	0.	2.31E-03	5.33E-04	4.70E-02 1.12E-02 6.12E-02
4	10.54 0.	0.	0.	0.	0.	0.	2.32E-03	5.48E-04	4.70E-02 1.11E-02 6.15E-02
5	10.50 0.	0.	0.	0.	0.	0.	2.32E-03	5.64E-04	4.75E-02 1.11E-02 6.15E-02
6	10.46 0.	0.	0.	0.	0.	0.	2.32E-03	5.81E-04	4.76E-02 1.11E-02 6.17E-02
7	10.41 0.	0.	0.	0.	0.	0.	2.33E-03	5.99E-04	4.77E-02 1.10E-02 6.17E-02
8	10.36 0.	0.	0.	0.	0.	0.	2.33E-03	6.17E-04	4.78E-02 1.10E-02 6.17E-02
9	10.31 0.	0.	0.	0.	0.	0.	2.33E-03	6.36E-04	4.79E-02 1.09E-02 6.18E-02
10	10.26 0.	0.	0.	0.	0.	0.	2.34E-03	6.56E-04	4.80E-02 1.09E-02 6.19E-02
11	10.21 0.	0.	0.	0.	0.	0.	2.34E-03	6.76E-04	4.81E-02 1.08E-02 6.20E-02
12	10.16 0.	0.	0.	0.	0.	0.	2.35E-03	6.96E-04	4.82E-02 1.08E-02 6.21E-02
13	10.11 0.	0.	0.	0.	0.	0.	2.35E-03	7.16E-04	4.83E-02 1.08E-02 6.22E-02
14	10.06 0.	0.	0.	0.	0.	0.	2.36E-03	7.36E-04	4.84E-02 1.07E-02 6.23E-02
15	10.01 0.	0.	0.	0.	0.	0.	2.37E-03	7.56E-04	4.85E-02 1.07E-02 6.24E-02
16	9.96 0.	0.	0.	0.	0.	0.	2.37E-03	7.76E-04	4.86E-02 1.06E-02 6.25E-02
17	9.91 0.	0.	0.	0.	0.	0.	2.38E-03	7.96E-04	1.74E-02 1.06E-02 3.12E-02
18	9.86 0.	0.	0.	0.	0.	0.	2.38E-03	8.16E-04	1.74E-02 1.06E-02 3.12E-02
19	9.81 0.	0.	0.	0.	0.	0.	2.39E-03	8.36E-04	1.74E-02 1.05E-02 3.12E-02
20	9.76 0.	0.	0.	0.	0.	0.	2.39E-03	8.56E-04	1.74E-02 1.05E-02 3.12E-02
21	9.71 0.	0.	0.	0.	0.	0.	2.40E-03	8.76E-04	1.74E-02 1.04E-02 3.12E-02
22	9.66 0.	0.	0.	0.	0.	0.	2.40E-03	8.96E-04	1.74E-02 1.04E-02 3.12E-02
23	9.61 0.	0.	0.	0.	0.	0.	2.41E-03	9.16E-04	1.74E-02 1.03E-02 3.12E-02
24	9.56 0.	0.	0.	0.	0.	0.	2.42E-03	9.36E-04	1.74E-02 1.03E-02 3.12E-02
25	9.51 0.	0.	0.	0.	0.	0.	2.42E-03	9.56E-04	1.74E-02 1.02E-02 3.12E-02
26	9.46 0.	0.	0.	0.	0.	0.	2.43E-03	9.76E-04	1.74E-02 1.02E-02 3.12E-02
27	9.41 0.	0.	0.	0.	0.	0.	2.43E-03	9.96E-04	1.74E-02 1.01E-02 3.12E-02
28	9.36 0.	0.	0.	0.	0.	0.	2.44E-03	1.01E-03	1.74E-02 1.01E-02 3.12E-02
29	9.31 0.	0.	0.	0.	0.	0.	2.44E-03	1.03E-03	1.74E-02 1.00E-02 3.12E-02
30	9.26 0.	0.	0.	0.	0.	0.	2.45E-03	1.05E-03	1.74E-02 1.00E-02 3.12E-02
31	9.21 0.	0.	0.	0.	0.	0.	2.45E-03	1.07E-03	1.74E-02 1.00E-02 3.12E-02
32	9.16 0.	0.	0.	0.	0.	0.	2.46E-03	1.09E-03	1.74E-02 1.00E-02 3.12E-02
33	9.11 0.	0.	0.	0.	0.	0.	2.46E-03	1.11E-03	1.74E-02 1.00E-02 3.12E-02
34	9.06 0.	0.	0.	0.	0.	0.	2.47E-03	1.13E-03	1.74E-02 1.00E-02 3.12E-02
35	9.01 0.	0.	0.	0.	0.	0.	2.47E-03	1.15E-03	1.74E-02 1.00E-02 3.12E-02
36	8.96 0.	0.	0.	0.	0.	0.	2.48E-03	1.17E-03	1.74E-02 1.00E-02 3.12E-02
37	8.91 0.	0.	0.	0.	0.	0.	2.48E-03	1.19E-03	1.74E-02 1.00E-02 3.12E-02
38	8.86 0.	0.	0.	0.	0.	0.	2.49E-03	1.21E-03	1.74E-02 1.00E-02 3.12E-02
39	8.81 0.	0.	0.	0.	0.	0.	2.49E-03	1.23E-03	1.74E-02 1.00E-02 3.12E-02
40	8.76 0.	0.	0.	0.	0.	0.	2.50E-03	1.25E-03	1.74E-02 1.00E-02 3.12E-02
41	8.71 0.	0.	0.	0.	0.	0.	2.50E-03	1.27E-03	1.74E-02 1.00E-02 3.12E-02
42	8.66 0.	0.	0.	0.	0.	0.	2.51E-03	1.29E-03	1.74E-02 1.00E-02 3.12E-02
43	8.61 0.	0.	0.	0.	0.	0.	2.51E-03	1.31E-03	1.74E-02 1.00E-02 3.12E-02
44	8.56 0.	0.	0.	0.	0.	0.	2.52E-03	1.33E-03	1.74E-02 1.00E-02 3.12E-02
45	8.51 0.	0.	0.	0.	0.	0.	2.52E-03	1.35E-03	1.74E-02 1.00E-02 3.12E-02
46	8.46 0.	0.	0.	0.	0.	0.	2.53E-03	1.37E-03	1.74E-02 1.00E-02 3.12E-02
47	8.41 0.	0.	0.	0.	0.	0.	2.53E-03	1.39E-03	1.74E-02 1.00E-02 3.12E-02
48	8.36 0.	0.	0.	0.	0.	0.	2.54E-03	1.41E-03	1.74E-02 1.00E-02 3.12E-02
49	8.31 0.	0.	0.	0.	0.	0.	2.54E-03	1.43E-03	1.74E-02 1.00E-02 3.12E-02
50	8.26 0.	0.	0.	0.	0.	0.	2.55E-03	1.45E-03	1.74E-02 1.00E-02 3.12E-02
51	8.21 0.	0.	0.	0.	0.	0.	2.55E-03	1.47E-03	1.74E-02 1.00E-02 3.12E-02

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)
TEMPERATURE (DEGREES K) 17000.
DENSITY (GM/CC) 1.293E-04 (1.0E-01 NORMAL)

PHOTON ENERGY	R2 5-R BANDS	N2 1ST POS.	N2 2ND POS.	N2+ 1ST NEG.	NO BETA	NO GAMMA	40 VIC-ROT	M0	0- PHOTO-DET		FREE-FREE		N		TOTAL AIR
									PHOTO-DET	FREE-FREE	N	P.E.	P.E.	P.E.	
52	5.63	2.78E-15	0.	0.	5.47E-07	3.94E-06	0.	0.	2.46E-03	3.94E-03	2.17E-02	1.17E-02	3.94E-02	0.	
53	5.50	5.	0.	0.	6.46E-07	3.29E-06	0.	0.	2.46E-03	3.74E-03	2.22E-02	1.10E-02	4.22E-02	0.	
54	5.44	0.	0.	0.	6.11E-07	2.96E-06	0.	0.	2.46E-03	3.97E-03	2.27E-02	1.20E-02	4.22E-02	0.	
55	5.30	0.	0.	0.	6.28E-07	3.34E-06	0.	0.	2.51E-03	4.20E-03	2.33E-02	1.22E-02	4.22E-02	0.	
56	5.20	0.	0.	0.	6.74E-07	3.50E-06	0.	0.	2.52E-03	4.54E-03	2.36E-02	1.24E-02	4.22E-02	0.	
57	5.10	0.	0.	0.	6.71E-07	3.23E-06	0.	0.	2.54E-03	4.72E-03	2.44E-02	1.26E-02	4.22E-02	0.	
58	5.00	3.70E-06	0.	0.	6.15E-07	3.01E-06	0.	0.	2.54E-03	5.01E-03	2.44E-02	1.26E-02	4.22E-02	0.	
59	4.90	9.19E-06	0.	0.	6.01E-07	3.27E-06	0.	0.	2.59E-03	5.33E-03	2.62E-02	1.31E-02	4.22E-02	0.	
60	4.80	1.71E-07	0.	0.	7.31E-07	3.06E-06	0.	0.	2.61E-03	5.67E-03	2.71E-02	1.34E-02	4.22E-02	0.	
61	4.70	2.29E-07	0.	0.	7.24E-07	2.77E-06	0.	0.	2.63E-03	5.89E-03	2.81E-02	1.37E-02	4.22E-02	0.	
62	4.60	3.15E-07	0.	0.	7.40E-07	2.52E-06	0.	0.	2.64E-03	6.04E-03	2.82E-02	1.41E-02	4.22E-02	0.	
63	4.50	3.38E-07	0.	0.	6.83E-07	1.69E-06	0.	0.	2.67E-03	6.00E-03	3.04E-02	1.41E-02	4.22E-02	0.	
64	4.40	3.52E-07	0.	0.	6.85E-07	1.31E-06	0.	0.	2.69E-03	7.30E-03	3.21E-02	1.40E-02	4.22E-02	0.	
65	4.30	3.32E-07	0.	0.	7.22E-06	0.	0.	0.	2.71E-03	6.97E-03	3.27E-02	1.52E-02	4.22E-02	0.	
66	4.20	3.09E-07	0.	0.	6.06E-07	5.74E-07	0.	0.	2.74E-03	6.91E-03	3.36E-02	1.54E-02	4.22E-02	0.	
67	4.10	2.90E-07	0.	0.	1.01E-05	0.	0.	0.	2.76E-03	6.16E-03	3.09E-02	1.57E-02	4.22E-02	0.	
68	4.00	2.67E-07	0.	0.	6.49E-07	1.21E-07	0.	0.	2.74E-03	6.04E-03	3.09E-02	1.57E-02	4.22E-02	0.	
69	3.90	2.48E-07	0.	0.	1.97E-05	5.92E-07	0.	0.	2.74E-03	1.14E-02	3.72E-02	1.64E-02	4.22E-02	0.	
70	3.80	2.48E-07	0.	0.	2.47E-05	4.70E-05	0.	0.	2.74E-03	1.14E-02	3.72E-02	1.64E-02	4.22E-02	0.	
71	3.70	2.28E-07	0.	0.	2.04E-05	1.94E-05	0.	0.	2.69E-03	1.25E-02	3.99E-02	1.70E-02	4.22E-02	0.	
72	3.60	1.90E-07	0.	0.	1.84E-05	1.07E-04	0.	0.	2.52E-03	1.36E-02	3.34E-02	0.12E-03	5.77E-02	0.	
73	3.50	1.04E-07	0.	0.	2.44E-05	2.00E-04	0.	0.	2.51E-03	1.40E-02	3.52E-02	0.04E-03	6.15E-02	0.	
74	3.40	1.04E-07	0.	0.	1.93E-05	2.09E-05	0.	0.	1.33E-03	1.61E-02	3.93E-02	0.07E-03	6.44E-02	0.	
75	3.30	1.35E-07	0.	0.	1.97E-05	1.58E-04	0.	0.	1.33E-03	1.77E-02	4.24E-02	1.00E-02	7.13E-02	0.	
76	3.20	1.7E-07	0.	0.	1.03E-05	2.83									

ABSORPTION COEFFICIENT OF HEATED AIR (INVERSE CM.)
TEMPERATURE (DEGREES K) 17000. DENSITY (GM/CC) 1.20E-05 (10.0E-03 NORMAL)

PHOTON ENERGY E.V.	Q2 S-A COUNT.	Q2 B-H NO. 1	NO META	NO GAMMA	NO 2	PHOTO-MET (TIMES)	FREE-FREE N	P.E.	0	TOTAL AIR
1 10.79 n.	0.	2.27E-07	0.	0.	0.	2.27E-05	2.34E-05	0.67E-02	0.15E-04	0.73E-02
2 10.60 n.	0.	2.06E-07	0.	0.	0.	2.23E-05	2.42E-05	2.13E-03	0.12E-04	2.00E-03
3 10.53 n.	0.	2.00E-07	0.	0.	0.	2.23E-05	2.39E-05	2.14E-03	0.10E-04	2.01E-03
4 10.43 n.	0.	1.97E-07	0.	0.	0.	2.73E-05	2.66E-05	2.15E-03	0.00E-04	2.01E-03
5 10.33 n.	0.	1.71E-07	0.	0.	0.	2.74E-05	2.63E-05	2.16E-03	0.00E-04	2.02E-03
6 10.20 n.	0.	1.74E-07	0.	0.	0.	2.74E-05	2.71E-05	2.16E-03	0.03E-04	2.02E-03
7 10.18 n.	0.	1.64E-07	0.	0.	0.	2.75E-05	2.68E-05	2.16E-03	0.01E-04	2.02E-03
8 10.08 n.	0.	1.45E-07	0.	0.	0.	2.75E-05	2.80E-05	2.16E-03	0.00E-04	2.02E-03
9 9.93 n.	0.	1.35E-07	0.	0.	0.	2.75E-05	2.97E-05	2.17E-03	0.07E-04	2.02E-03
10 9.83 n.	0.	1.30E-07	0.	0.	0.	2.76E-05	3.04E-05	2.17E-03	0.04E-04	2.03E-03
11 9.77 n.	0.	1.20E-07	0.	0.	0.	2.76E-05	3.16E-05	2.18E-03	0.07E-04	2.03E-03
12 9.63 n.	0.	1.10E-07	0.	0.	0.	2.77E-05	3.28E-05	2.18E-03	0.00E-04	2.03E-03
13 9.53 n.	0.	1.15E-07	0.	0.	0.	2.77E-05	3.36E-05	2.19E-03	0.07E-04	2.04E-03
14 9.43 n.	0.	1.04E-07	0.	0.	0.	2.78E-05	3.47E-05	2.20E-03	0.05E-04	2.04E-03
15 9.33 n.	0.	1.07E-07	0.	0.	0.	2.79E-05	3.59E-05	2.20E-03	0.03E-04	2.05E-03
16 9.23 n.	0.	0.91E-08	0.	0.	0.	2.80E-05	3.71E-05	2.21E-03	0.01E-04	2.05E-03
17 9.13 n.	0.	0.95E-08	0.	0.	0.	2.81E-05	3.83E-05	2.21E-03	0.00E-04	2.05E-03
18 9.03 n.	0.	0.21E-08	0.	0.	0.	2.82E-05	3.94E-05	2.22E-03	0.07E-04	2.05E-03
19 8.93 n.	0.	7.50E-08	0.	0.	0.	2.83E-05	4.10E-05	2.22E-03	0.07E-04	2.05E-03
20 8.83 n.	0.	7.44E-08	0.	0.	0.	2.84E-05	4.24E-05	2.23E-03	0.07E-04	2.05E-03
21 8.73 n.	0.	6.43E-08	0.	0.	0.	2.85E-05	4.39E-05	2.23E-03	0.07E-04	2.05E-03
22 8.62 n.	0.	6.62E-08	0.	0.	0.	2.86E-05	4.54E-05	2.23E-03	0.07E-04	2.05E-03
23 8.53 n.	0.	5.79E-08	0.	0.	0.	2.87E-05	4.71E-05	2.23E-03	0.07E-04	2.05E-03
24 8.44 n.	0.	5.74E-08	0.	0.	0.	2.89E-05	4.80E-05	2.24E-03	0.05E-04	2.05E-03
25 8.38 n.	0.	4.94E-08	0.	0.	0.	2.92E-05	5.29E-05	2.24E-03	0.04E-04	2.05E-03
26 8.23 n.	0.	4.91E-08	0.	0.	0.	2.92E-05	5.29E-05	2.24E-03	0.04E-04	2.05E-03
27 8.17 n.	0.	4.25E-08	0.	0.	0.	2.95E-05	5.42E-05	2.24E-03	0.00E-04	2.05E-03
28 8.07 n.	0.	3.65E-08	0.	0.	0.	2.95E-05	5.45E-05	2.24E-03	0.00E-04	2.05E-03
29 7.93 n.	0.	3.78E-08	0.	0.	0.	2.97E-05	5.87E-05	2.24E-03	0.00E-04	2.05E-03
30 7.83 n.	0.	3.15E-08	0.	0.	0.	3.00E-05	6.39E-05	2.24E-03	0.00E-04	2.05E-03
31 7.70 n.	0.	3.31E-08	0.	0.	0.	3.00E-05	6.39E-05	2.24E-03	0.00E-04	2.05E-03
32 7.63 n.	0.	3.13E-08	0.	1.94E-12	0.	3.01E-05	6.48E-05	2.25E-03	0.00E-04	2.05E-03
33 7.58 n.	0.	2.80E-08	0.	6.49E-12	0.	3.03E-05	6.87E-05	2.25E-03	0.00E-04	2.05E-03
34 7.49 n.	0.	2.59E-08	0.	5.19E-11	0.	3.04E-05	7.14E-05	2.25E-03	0.00E-04	2.05E-03
35 7.39 n.	0.	2.45E-08	0.	2.10E-10	0.	3.06E-05	7.44E-05	2.25E-03	0.00E-04	2.05E-03
36 7.27 n.	0.	2.21E-08	0.	5.73E-10	0.	3.08E-05	7.76E-05	2.25E-03	0.00E-04	2.05E-03
37 7.13 n.	0.	2.12E-08	0.	1.77E-09	0.	3.10E-05	8.11E-05	2.25E-03	0.00E-04	2.05E-03
38 7.03 n.	0.	1.94E-08	0.	3.61E-09	0.	3.13E-05	8.47E-05	2.25E-03	0.00E-04	2.05E-03
39 6.93 n.	0.	1.77E-08	0.	8.62E-09	0.	3.15E-05	8.85E-05	2.25E-03	0.00E-04	2.05E-03
40 6.83 n.	0.	1.70E-08	0.	6.62E-09	0.	3.18E-05	9.25E-05	2.25E-03	0.00E-04	2.05E-03
41 6.71 n.	0.	1.49E-08	0.	4.70E-09	0.	3.20E-05	9.67E-05	2.25E-03	0.00E-04	2.05E-03
42 6.61 n.	0.	1.33E-08	0.	6.95E-09	0.	3.23E-05	1.01E-04	2.25E-03	0.00E-04	2.05E-03
43 6.51 n.	0.	1.08E-08	0.	1.00E-08	0.	3.25E-05	1.05E-04	2.25E-03	0.00E-04	2.05E-03
44 6.41 n.	0.	7.28E-09	0.	3.73E-11	0.	3.28E-05	1.11E-04	2.25E-03	0.00E-04	2.05E-03
45 6.30 n.	0.	4.52E-09	0.	1.75E-10	0.	3.30E-05	1.15E-04	2.25E-03	0.00E-04	2.05E-03
46 6.20 n.	0.	2.49E-09	0.	9.60E-09	0.	3.33E-05	1.22E-04	2.25E-03	0.00E-04	2.05E-03
47 6.13 n.	0.	1.17E-09	0.	7.05E-10	0.	3.35E-05	1.29E-04	2.25E-03	0.00E-04	2.05E-03
48 6.03 n.	0.	7.99E-10	0.	6.71E-10	0.	3.38E-05	1.37E-04	2.25E-03	0.00E-04	2.05E-03
49 5.93 n.	0.	2.32E-11	0.	1.47E-09	0.	3.40E-05	1.42E-04	2.25E-03	0.00E-04	2.05E-03
50 5.84 n.	0.	7.33E-13	0.	1.37E-09	0.	3.43E-05	1.45E-04	2.25E-03	0.00E-04	2.05E-03
51 5.73 n.	0.	1.40E-09	0.	6.53E-09	0.	3.43E-05	1.45E-04	2.25E-03	0.00E-04	2.05E-03

ABSORPTION COEFFICIENT OF HEATED AIR (INVERSE CM.)									
TEMPERATURE (CENTIGRADES) 17000.									
WAVELNTH ENERGY RANGE E.V.	02 S-B CONT.	42 R-W NO. 1	NO		0-		0		TOTAL AIR
			DETA	GAMMA	PHOTO-DET (IPMS)	REF-REF	N	P.E.	
1 10.70 0.	0.	0.	0.	0.	0.	0.25E-08	4.54E-07	4.05E-05	1.54E-05 5.45E-05
2 10.67 0.	0.	0.	0.	0.	0.	0.24E-08	4.67E-07	4.07E-05	1.53E-05 5.46E-05
3 10.59 0.	0.	0.	0.	0.	0.	0.27E-08	4.81E-07	4.09E-05	1.52E-05 5.48E-05
4 10.48 0.	0.	0.	0.	0.	0.	0.29E-08	4.94E-07	4.11E-05	1.53E-05 5.49E-05
5 10.33 0.	0.	0.	0.	0.	0.	0.30E-08	5.06E-07	4.12E-05	1.52E-05 5.50E-05
6 10.20 0.	0.	0.	0.	0.	0.	0.31E-08	5.25E-07	4.13E-05	1.52E-05 5.50E-05
7 10.10 0.	0.	0.	0.	0.	0.	0.32E-08	5.40E-07	4.13E-05	1.51E-05 5.50E-05
8 10.03 0.	0.	0.	0.	0.	0.	0.33E-08	5.57E-07	4.14E-05	1.51E-05 5.49E-05
9 9.98 0.	0.	0.	0.	0.	0.	0.34E-08	5.74E-07	4.14E-05	1.50E-05 5.49E-05
10 9.91 0.	0.	0.	0.	0.	0.	0.35E-08	5.92E-07	4.15E-05	1.50E-05 5.48E-05
11 9.87 0.	0.	0.	0.	0.	0.	0.36E-08	6.12E-07	4.15E-05	1.49E-05 5.47E-05
12 9.81 0.	0.	0.	0.	0.	0.	0.37E-08	6.30E-07	4.16E-05	1.49E-05 5.47E-05
13 9.75 0.	0.	0.	0.	0.	0.	0.38E-08	6.50E-07	4.16E-05	1.48E-05 5.46E-05
14 9.67 0.	0.	0.	0.	0.	0.	0.40E-08	6.71E-07	4.17E-05	1.47E-05 5.46E-05
15 9.59 0.	0.	0.	0.	0.	0.	0.42E-08	6.93E-07	4.17E-05	1.46E-05 5.45E-05
16 9.51 0.	0.	0.	0.	0.	0.	0.44E-08	7.16E-07	4.18E-05	1.45E-05 5.44E-05
17 9.43 0.	0.	0.	0.	0.	0.	0.46E-08	7.40E-07	4.18E-05	1.44E-05 5.43E-05
18 9.35 0.	0.	0.	0.	0.	0.	0.48E-08	7.65E-07	4.19E-05	1.43E-05 5.42E-05
19 9.27 0.	0.	0.	0.	0.	0.	0.50E-08	7.91E-07	4.19E-05	1.42E-05 5.41E-05
20 9.19 0.	0.	0.	0.	0.	0.	0.52E-08	8.18E-07	4.20E-05	1.41E-05 5.40E-05
21 9.11 0.	0.	0.	0.	0.	0.	0.54E-08	8.46E-07	4.20E-05	1.40E-05 5.39E-05
22 9.03 0.	0.	0.	0.	0.	0.	0.56E-08	8.75E-07	4.21E-05	1.39E-05 5.38E-05
23 8.95 0.	0.	0.	0.	0.	0.	0.58E-08	9.05E-07	4.21E-05	1.38E-05 5.37E-05
24 8.87 0.	0.	0.	0.	0.	0.	0.60E-08	9.36E-07	4.22E-05	1.37E-05 5.36E-05
25 8.79 0.	0.	0.	0.	0.	0.	0.62E-08	9.68E-07	4.22E-05	1.36E-05 5.35E-05
26 8.71 0.	0.	0.	0.	0.	0.	0.64E-08	1.00E-06	4.23E-05	1.35E-05 5.34E-05
27 8.63 0.	0.	0.	0.	0.	0.	0.66E-08	1.04E-06	4.23E-05	1.34E-05 5.33E-05
28 8.55 0.	0.	0.	0.	0.	0.	0.68E-08	1.08E-06	4.24E-05	1.33E-05 5.32E-05
29 8.47 0.	0.	0.	0.	0.	0.	0.70E-08	1.13E-06	4.24E-05	1.32E-05 5.31E-05
30 8.39 0.	0.	0.	0.	0.	0.	0.72E-08	1.18E-06	4.25E-05	1.31E-05 5.30E-05
31 8.31 0.	0.	0.	0.	0.	0.	0.74E-08	1.23E-06	4.25E-05	1.30E-05 5.29E-05
32 8.23 0.	0.	0.	0.	0.	0.	0.76E-08	1.28E-06	4.26E-05	1.29E-05 5.28E-05
33 8.15 0.	0.	0.	0.	0.	0.	0.78E-08	1.34E-06	4.26E-05	1.28E-05 5.27E-05
34 8.07 0.	0.	0.	0.	0.	0.	0.80E-08	1.40E-06	4.27E-05	1.27E-05 5.26E-05
35 7.99 0.	0.	0.	0.	0.	0.	0.82E-08	1.46E-06	4.27E-05	1.26E-05 5.25E-05
36 7.91 0.	0.	0.	0.	0.	0.	0.84E-08	1.53E-06	4.28E-05	1.25E-05 5.24E-05
37 7.83 0.	0.	0.	0.	0.	0.	0.86E-08	1.60E-06	4.28E-05	1.24E-05 5.23E-05
38 7.75 0.	0.	0.	0.	0.	0.	0.88E-08	1.68E-06	4.29E-05	1.23E-05 5.22E-05
39 7.67 0.	0.	0.	0.	0.	0.	0.90E-08	1.76E-06	4.29E-05	1.22E-05 5.21E-05
40 7.59 0.	0.	0.	0.	0.	0.	0.92E-08	1.85E-06	4.30E-05	1.21E-05 5.20E-05
41 7.51 0.	0.	0.	0.	0.	0.	0.94E-08	1.94E-06	4.30E-05	1.20E-05 5.19E-05
42 7.43 0.	0.	0.	0.	0.	0.	0.96E-08	2.04E-06	4.31E-05	1.19E-05 5.18E-05
43 7.35 0.	0.	0.	0.	0.	0.	0.98E-08	2.14E-06	4.31E-05	1.18E-05 5.17E-05
44 7.27 0.	0.	0.	0.	0.	0.	0.10E-07	2.25E-06	4.32E-05	1.17E-05 5.16E-05
45 7.19 0.	0.	0.	0.	0.	0.	0.10E-07	2.36E-06	4.32E-05	1.16E-05 5.15E-05
46 7.11 0.	0.	0.	0.	0.	0.	0.11E-07	2.48E-06	4.33E-05	1.15E-05 5.14E-05
47 7.03 0.	0.	0.	0.	0.	0.	0.11E-07	2.60E-06	4.33E-05	1.14E-05 5.13E-05
48 6.95 0.	0.	0.	0.	0.	0.	0.12E-07	2.73E-06	4.34E-05	1.13E-05 5.12E-05
49 6.87 0.	0.	0.	0.	0.	0.	0.12E-07	2.86E-06	4.34E-05	1.12E-05 5.11E-05
50 6.79 0.	0.	0.	0.	0.	0.	0.13E-07	3.00E-06	4.35E-05	1.11E-05 5.10E-05
51 6.71 0.	0.	0.	0.	0.	0.	0.13E-07	3.14E-06	4.35E-05	1.10E-05 5.09E-05

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.2938-06 (10.0E-04 NORMAL)		0- FREE-FREE		P.E.		TOTAL AIR	
PHOTON	WAVELENGTH	TEMPERATURE	DENSITY	1.2938-06	0- FREE-FREE	PHOTO-DET	P.E.	P.E.	P.E.	P.E.	P.E.
22 5-2	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.
52 5.00	3.04E-21	0.	0.	5.94E-13	3.30E-12	0.	0.	0.01E-08	3.21E-06	1.07E-05	1.30E-05
53 5.50	0.	0.	0.	6.76E-13	3.32E-12	0.	0.	0.04E-08	3.30E-06	1.07E-05	1.41E-05
54 5.40	0.	0.	0.	6.19E-13	2.37E-12	0.	0.	0.05E-08	3.90E-06	1.09E-05	1.43E-05
55 5.30	0.	0.	0.	6.14E-13	3.11E-12	0.	0.	0.04E-08	3.79E-06	2.00E-05	1.45E-05
56 5.20	0.	0.	0.	6.01E-13	2.33E-12	0.	0.	0.02E-08	0.87E-06	2.04E-05	1.47E-05
57 5.10	0.	0.	0.	6.79E-13	3.30E-12	0.	0.	0.04E-08	0.29E-06	2.10E-05	1.50E-05
58 5.00	3.39E-14	0.	0.	6.80E-13	3.04E-12	0.	0.	0.17E-08	0.52E-06	2.10E-05	1.53E-05
59 4.90	1.20E-13	0.	0.	6.90E-13	3.11E-12	0.	0.	0.29E-08	0.81E-06	2.20E-05	1.54E-05
60 4.80	2.40E-13	0.	0.	7.00E-13	3.10E-12	0.	0.	0.32E-08	0.91E-06	2.31E-05	1.56E-05
61 4.70	3.70E-13	0.	0.	7.10E-13	2.91E-12	0.	0.	0.40E-08	0.94E-06	2.40E-05	1.63E-05
62 4.60	4.04E-13	0.	0.	7.37E-13	2.95E-12	0.	0.	0.40E-08	0.93E-06	2.40E-05	1.67E-05
63 4.50	4.60E-13	0.	0.	6.92E-13	1.92E-12	0.	0.	0.95E-08	0.23E-06	2.61E-05	1.72E-05
64 4.40	4.90E-13	0.	0.	6.95E-13	1.92E-12	0.	0.	0.08E-08	0.07E-06	2.74E-05	1.74E-05
65 4.30	4.70E-13	0.	0.	6.80E-13	0.20E-13	0.	0.	0.70E-08	0.15E-06	2.87E-05	1.81E-05
66 4.20	4.30E-13	0.	0.	6.94E-13	5.95E-13	0.	0.	0.70E-08	0.15E-06	3.01E-05	1.84E-05
67 4.10	4.11E-13	0.	0.	6.70E-13	1.05E-13	0.	0.	0.84E-08	0.24E-06	3.15E-05	1.84E-05
68 4.00	3.70E-13	0.	0.	6.33E-13	1.27E-13	0.	0.	0.84E-08	0.09E-06	3.29E-05	1.84E-05
69 3.90	3.20E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.82E-08	0.01E-06	3.15E-05	1.79E-05
70 3.80	3.91E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.70E-08	0.04E-06	2.92E-05	1.69E-05
71 3.70	3.11E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.62E-08	0.13E-06	2.64E-05	1.64E-05
72 3.60	2.80E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.62E-08	0.13E-06	2.64E-05	1.64E-05
73 3.50	2.30E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.29E-08	0.12E-06	2.64E-05	1.64E-05
74 3.40	2.30E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.70E-08	0.13E-06	2.64E-05	1.64E-05
75 3.30	1.91E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.77E-08	0.15E-06	3.15E-05	1.79E-05
76 3.20	1.60E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.70E-08	0.13E-06	2.92E-05	1.69E-05
77 3.10	1.40E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.70E-08	0.13E-06	2.92E-05	1.69E-05
78 3.00	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
79 2.90	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
80 2.80	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
81 2.70	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
82 2.60	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
83 2.50	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
84 2.40	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
85 2.30	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
86 2.20	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
87 2.10	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
88 2.00	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
89 1.90	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
90 1.80	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
91 1.70	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
92 1.60	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
93 1.50	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
94 1.40	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
95 1.30	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
96 1.20	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
97 1.10	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
98 1.00	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
99 0.90	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
100 0.80	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
101 0.70	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05
102 0.60	1.25E-13	0.	0.	6.00E-13	4.00E-14	0.	0.	0.08E-08	0.01E-06	2.92E-05	1.69E-05

TELEPHONE (BUREAU) 1700.
WE451V (RM) 1.272-87 (10.02-85) (MURRAY)

PROJID	PT 5-8	02 5-8	02 9-14	03	10	0-	PROG-PRICE	%	0	TOTAL A10	
E.V.	DATE	CHRG.	NO. 1	NO. 1A	GAUWA	2	PROG-PRICE (1900)	P.E.	P.E.		
1	10-70	1	1,000-14	0	0	0	1,015-10	5,140-00	5,140-07	1,520-07	6,700-07
2	10-65	1	0,070-15	0	0	0	1,020-10	5,200-00	5,220-07	1,590-07	6,820-07
3	10-55	0	0,150-15	0	0	0	1,025-10	5,400-00	5,420-07	1,540-07	6,920-07
4	10-45	0	0,040-15	0	0	0	1,030-10	5,600-00	5,620-07	1,540-07	7,160-07
5	10-35	0	7,700-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
6	10-25	0	7,700-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
7	10-15	0	7,700-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
8	10-10	0	7,700-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
9	10-05	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
10	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
11	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
12	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
13	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
14	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
15	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
16	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
17	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
18	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
19	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
20	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
21	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
22	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
23	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
24	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
25	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
26	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
27	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
28	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
29	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
30	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
31	10-00	0	6,300-15	0	0	0	1,035-10	5,700-00	5,720-07	1,530-07	7,230-07
32	10-00	0	6,300-15								

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)
TEMPERATURE (DEGREES K) 17000. DENSITY (GM/CC) 1.293E-00 (1.0E-05 NORMAL)

PHOTON ENERGY E.V.	02 S-R BANDS	02 S-R CONT.	02 R-W NO. 1	NO META	NO GAMMA	NO 2	0- PHOTO-DET	FREQ-FREQ (10MS)	N P.E.	0 P.E.	TOTAL AIR
1 10.73 0.	0.	0.	1.02E-18	0.	0.	0.	1.00E-13	5.49E-11	5.62E-09	1.62E-07	7.49E-09
2 10.68 0.	0.	0.	9.24E-19	0.	0.	0.	1.07E-13	5.69E-11	5.69E-09	1.61E-07	7.52E-09
3 10.58 0.	0.	0.	9.32E-19	0.	0.	0.	1.07E-13	5.67E-11	5.67E-09	1.61E-07	7.54E-09
4 10.47 0.	0.	0.	4.02E-19	0.	0.	0.	1.07E-13	5.90E-11	5.90E-09	1.60E-07	7.56E-09
5 10.51 0.	0.	0.	7.67E-19	0.	0.	0.	1.07E-13	6.16E-11	6.16E-09	1.60E-07	7.57E-09
6 10.28 0.	0.	0.	7.91E-19	0.	0.	0.	1.07E-13	6.33E-11	6.33E-09	1.59E-07	7.59E-09
7 10.19 0.	0.	0.	7.43E-19	0.	0.	0.	1.07E-13	6.53E-11	6.53E-09	1.58E-07	7.62E-09
8 10.09 0.	0.	0.	6.50E-19	0.	0.	0.	1.07E-13	6.73E-11	6.73E-09	1.57E-07	7.64E-09
9 9.99 0.	0.	0.	6.67E-19	0.	0.	0.	1.08E-13	6.94E-11	6.94E-09	1.57E-07	7.66E-09
10 9.89 0.	0.	0.	6.25E-19	0.	0.	0.	1.08E-13	7.15E-11	7.15E-09	1.56E-07	7.69E-09
11 9.79 0.	0.	0.	5.10E-19	0.	0.	0.	1.08E-13	7.36E-11	7.36E-09	1.56E-07	7.71E-09
12 9.69 0.	0.	0.	4.81E-19	0.	0.	0.	1.08E-13	7.61E-11	7.61E-09	1.56E-07	7.74E-09
13 9.59 0.	0.	0.	4.05E-19	0.	0.	0.	1.08E-13	7.84E-11	7.84E-09	1.56E-07	7.76E-09
14 9.43 0.	0.	0.	4.68E-19	0.	0.	0.	1.09E-13	8.11E-11	8.11E-09	1.56E-07	7.79E-09
15 9.33 0.	0.	0.	4.79E-19	0.	0.	0.	1.09E-13	8.39E-11	8.39E-09	1.56E-07	7.81E-09
16 9.24 0.	0.	0.	3.95E-19	0.	0.	0.	1.10E-13	8.68E-11	8.68E-09	1.53E-07	7.83E-09
17 9.14 0.	0.	0.	4.06E-19	0.	0.	0.	1.10E-13	8.96E-11	8.96E-09	1.53E-07	7.84E-09
18 9.04 0.	0.	0.	3.68E-19	0.	0.	0.	1.10E-13	9.25E-11	9.25E-09	1.52E-07	7.85E-09
19 8.94 0.	0.	0.	3.40E-19	0.	0.	0.	1.11E-13	9.54E-11	9.54E-09	1.50E-07	7.86E-09
20 8.84 0.	0.	0.	3.33E-19	0.	0.	0.	1.11E-13	9.81E-11	9.81E-09	1.50E-07	7.87E-09
21 8.74 0.	0.	0.	2.80E-19	0.	0.	0.	1.12E-13	1.03E-10	1.03E-09	1.49E-07	7.88E-09
22 8.64 0.	0.	0.	2.97E-19	0.	0.	0.	1.12E-13	1.06E-10	1.06E-09	1.49E-07	7.89E-09
23 8.54 0.	0.	0.	2.59E-19	0.	0.	0.	1.13E-13	1.10E-10	1.10E-09	1.48E-07	7.90E-09
24 8.44 0.	0.	0.	2.58E-19	0.	0.	0.	1.13E-13	1.13E-10	1.13E-09	1.48E-07	7.91E-09
25 8.34 0.	0.	0.	2.10E-19	0.	0.	0.	1.14E-13	1.16E-10	1.16E-09	1.48E-07	7.92E-09
26 8.24 0.	0.	0.	2.28E-19	0.	0.	0.	1.14E-13	1.20E-10	1.20E-09	1.48E-07	7.93E-09
27 8.14 0.	0.	0.	1.90E-19	0.	0.	0.	1.15E-13	1.23E-10	1.23E-09	1.48E-07	7.94E-09
28 8.04 0.	0.	0.	1.91E-19	0.	0.	0.	1.15E-13	1.27E-10	1.27E-09	1.48E-07	7.95E-09
29 7.94 0.	0.	0.	1.64E-19	0.	0.	0.	1.16E-13	1.32E-10	1.32E-09	1.49E-07	7.96E-09
30 7.84 0.	0.	0.	1.60E-19	0.	0.	0.	1.16E-13	1.37E-10	1.37E-09	1.49E-07	7.97E-09
31 7.74 0.	0.	0.	1.40E-19	0.	0.	0.	1.17E-13	1.42E-10	1.42E-09	1.50E-07	7.98E-09
32 7.64 0.	0.	0.	1.40E-19	0.	0.	0.	1.17E-13	1.46E-10	1.46E-09	1.50E-07	7.99E-09
33 7.54 0.	0.	0.	1.30E-19	0.	0.	0.	1.18E-13	1.54E-10	1.54E-09	1.51E-07	8.00E-09
34 7.44 0.	0.	0.	1.16E-19	0.	0.	0.	1.19E-13	1.61E-10	1.61E-09	1.52E-07	8.01E-09
35 7.34 0.	0.	0.	2.10E-19	0.	0.	0.	1.20E-13	1.74E-10	1.74E-09	1.52E-07	8.02E-09
36 7.24 0.	0.	0.	9.91E-20	0.	0.	0.	1.20E-13	1.80E-10	1.80E-09	1.51E-07	8.03E-09
37 7.14 0.	0.	0.	9.70E-20	0.	0.	0.	1.21E-13	1.96E-10	1.96E-09	1.51E-07	8.04E-09
38 7.04 0.	0.	0.	4.44E-20	0.	0.	0.	1.22E-13	2.09E-10	2.09E-09	1.54E-07	8.05E-09
39 6.94 0.	0.	0.	4.44E-20	0.	0.	0.	1.23E-13	2.09E-10	2.09E-09	1.54E-07	8.06E-09
40 6.84 0.	0.	0.	7.44E-20	0.	0.	0.	1.24E-13	2.14E-10	2.14E-09	1.55E-07	8.07E-09
41 6.74 0.	0.	0.	4.44E-20	0.	0.	0.	1.25E-13	2.24E-10	2.24E-09	1.55E-07	8.08E-09
42 6.64 0.	0.	0.	5.97E-20	0.	0.	0.	1.26E-13	2.34E-10	2.34E-09	1.56E-07	8.09E-09
43 6.54 0.	0.	0.	5.97E-20	0.	0.	0.	1.27E-13	2.44E-10	2.44E-09	1.57E-07	8.10E-09
44 6.44 0.	0.	0.	5.97E-20	0.	0.	0.	1.28E-13	2.54E-10	2.54E-09	1.57E-07	8.11E-09
45 6.34 0.	0.	0.	5.97E-20	0.	0.	0.	1.29E-13	2.64E-10	2.64E-09	1.58E-07	8.12E-09
46 6.24 0.	0.	0.	5.97E-20	0.	0.	0.	1.30E-13	2.74E-10	2.74E-09	1.58E-07	8.13E-09
47 6.14 0.	0.	0.	5.97E-20	0.	0.	0.	1.31E-13	2.84E-10	2.84E-09	1.58E-07	8.14E-09
48 6.04 0.	0.	0.	5.97E-20	0.	0.	0.	1.32E-13	2.94E-10	2.94E-09	1.58E-07	8.15E-09
49 5.94 0.	0.	0.	5.97E-20	0.	0.	0.	1.33E-13	3.04E-10	3.04E-09	1.58E-07	8.16E-09
50 5.84 0.	0.	0.	5.97E-20	0.	0.	0.	1.34E-13	3.14E-10	3.14E-09	1.58E-07	8.17E-09
51 5.74 0.	0.	0.	5.97E-20	0.	0.	0.	1.35E-13	3.24E-10	3.24E-09	1.58E-07	8.18E-09

ABSORPTION COEFFICIENT OF HEATED AIR (INVERSE CM.)
 TEMPERATURE (DEGREES F) 17000. DENSITY (GM/CC) 1.293E-09 (1.0E-04 NORMAL)

PHOTO 02 S-B ENERGY BANDS E.V.	02 S-B CONT.	W2 R-M NO. 1	NO META	NO GAMMA	NO 2	O- PHOTO-DET (17MS)	FREF-FRFE N	P.E. P.E.	D TOTAL AIR
1 10.70 0.	0.	9.41E-23	0.	0.	0.	1.29E-16	7.84E-13	1.59E-10	1.59E-11
2 10.40 0.	0.	8.54E-23	0.	0.	0.	1.29E-16	8.40E-13	1.60E-10	1.60E-11
3 10.50 0.	0.	8.41E-23	0.	0.	0.	1.29E-16	9.26E-13	1.61E-10	1.61E-11
4 10.40 0.	0.	8.14E-23	0.	0.	0.	1.29E-16	1.01E-12	1.62E-10	1.62E-11
5 10.50 0.	0.	7.09E-23	0.	0.	0.	1.29E-16	8.79E-13	1.63E-10	1.63E-11
6 10.20 0.	0.	7.30E-23	0.	0.	0.	1.29E-16	9.05E-13	1.64E-10	1.64E-11
7 10.10 0.	0.	6.84E-23	0.	0.	0.	1.30E-16	9.35E-13	1.65E-10	1.65E-11
8 10.00 0.	0.	6.89E-23	0.	0.	0.	1.30E-16	9.35E-13	1.65E-10	1.65E-11
9 9.90 0.	0.	6.16E-23	0.	0.	0.	1.30E-16	9.08E-13	1.66E-10	1.66E-11
10 9.80 0.	0.	5.77E-23	0.	0.	0.	1.30E-16	1.07E-12	1.67E-10	1.67E-11
11 9.70 0.	0.	4.97E-23	0.	0.	0.	1.30E-16	1.07E-12	1.67E-10	1.67E-11
12 9.60 0.	0.	5.37E-23	0.	0.	0.	1.31E-16	1.09E-12	1.73E-10	1.73E-11
13 9.50 0.	0.	4.97E-23	0.	0.	0.	1.31E-16	1.12E-12	1.75E-10	1.75E-11
14 9.40 0.	0.	4.7E-23	0.	0.	0.	1.31E-16	1.15E-12	1.75E-10	1.75E-11
15 9.30 0.	0.	4.2E-23	0.	0.	0.	1.32E-16	1.15E-12	1.75E-10	1.75E-11
16 9.20 0.	0.	3.65E-23	0.	0.	0.	1.32E-16	1.15E-12	1.75E-10	1.75E-11
17 9.10 0.	0.	3.75E-23	0.	0.	0.	1.33E-16	1.29E-12	1.58E-10	1.58E-11
18 9.00 0.	0.	3.48E-23	0.	0.	0.	1.33E-16	1.37E-12	1.58E-10	1.58E-11
19 8.90 0.	0.	3.14E-23	0.	0.	0.	1.33E-16	1.37E-12	1.58E-10	1.58E-11
20 8.80 0.	0.	3.08E-23	0.	0.	0.	1.34E-16	1.41E-12	1.58E-10	1.58E-11
21 8.70 0.	0.	2.46E-23	0.	0.	0.	1.35E-16	1.46E-12	1.57E-10	1.57E-11
22 8.60 0.	0.	2.74E-23	0.	0.	0.	1.35E-16	1.51E-12	1.58E-10	1.58E-11
23 8.50 0.	0.	2.40E-23	0.	0.	0.	1.36E-16	1.57E-12	1.63E-10	1.63E-11
24 8.40 0.	0.	2.80E-23	0.	0.	0.	1.36E-16	1.63E-12	1.74E-10	1.74E-11
25 8.30 0.	0.	2.81E-23	0.	0.	0.	1.37E-16	1.65E-12	1.74E-10	1.74E-11
26 8.20 0.	0.	2.03E-23	0.	0.	0.	1.38E-16	1.75E-12	1.79E-10	1.79E-11
27 8.10 0.	0.	1.75E-23	0.	0.	0.	1.39E-16	1.81E-12	1.84E-10	1.84E-11
28 8.00 0.	0.	1.76E-23	0.	0.	0.	1.39E-16	1.84E-12	1.84E-10	1.84E-11
29 7.90 0.	0.	1.51E-23	0.	0.	0.	1.40E-16	1.94E-12	1.91E-10	1.91E-11
30 7.80 0.	0.	1.56E-23	0.	0.	0.	1.41E-16	2.03E-12	1.94E-10	1.94E-11
31 7.70 0.	0.	1.77E-23	0.	0.	0.	1.41E-16	2.11E-12	1.94E-10	1.94E-11
32 7.60 0.	0.	1.30E-23	0.	0.	0.	1.42E-16	2.20E-12	1.94E-10	1.94E-11
33 7.50 0.	0.	1.20E-23	0.	0.	0.	1.43E-16	2.29E-12	1.94E-10	1.94E-11
34 7.40 0.	0.	1.07E-23	0.	0.	0.	1.44E-16	2.39E-12	1.94E-10	1.94E-11
35 7.30 0.	0.	1.02E-23	0.	0.	0.	1.44E-16	2.47E-12	1.94E-10	1.94E-11
36 7.20 0.	0.	9.15E-24	0.	0.	0.	1.45E-16	2.55E-12	1.94E-10	1.94E-11
37 7.10 0.	0.	8.77E-24	0.	0.	0.	1.46E-16	2.70E-12	1.94E-10	1.94E-11
38 7.00 0.	0.	8.03E-24	0.	0.	0.	1.46E-16	2.89E-12	1.94E-10	1.94E-11
39 6.90 0.	0.	7.95E-24	0.	0.	0.	1.46E-16	2.94E-12	1.94E-10	1.94E-11
40 6.80 0.	0.	7.06E-24	0.	0.	0.	1.46E-16	3.09E-12	1.94E-10	1.94E-11
41 6.70 0.	0.	6.17E-24	0.	0.	0.	1.46E-16	3.22E-12	1.94E-10	1.94E-11
42 6.60 0.	0.	5.51E-24	0.	0.	0.	1.46E-16	3.35E-12	1.94E-10	1.94E-11
43 6.50 0.	0.	4.38E-24	0.	0.	0.	1.46E-16	3.53E-12	1.94E-10	1.94E-11
44 6.40 0.	0.	3.01E-24	0.	0.	0.	1.46E-16	3.69E-12	1.94E-10	1.94E-11
45 6.30 0.	0.	1.87E-24	0.	0.	0.	1.46E-16	3.87E-12	1.94E-10	1.94E-11
46 6.20 0.	0.	1.43E-24	0.	0.	0.	1.46E-16	4.07E-12	1.94E-10	1.94E-11
47 6.10 0.	0.	4.33E-25	0.	0.	0.	1.46E-16	4.27E-12	1.94E-10	1.94E-11
48 6.00 0.	0.	1.22E-25	0.	0.	0.	1.46E-16	4.45E-12	1.94E-10	1.94E-11
49 5.90 0.	0.	8.77E-25	0.	0.	0.	1.46E-16	4.72E-12	1.94E-10	1.94E-11
50 5.80 0.	0.	5.21E-24	0.	0.	0.	1.46E-16	4.97E-12	1.94E-10	1.94E-11
51 5.70 0.	0.	9.22E-25	0.	0.	0.	1.46E-16	5.24E-12	1.94E-10	1.94E-11

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)
 TEMPERATURE (DEGREES K) 17000. DENSITY (GM/CC) 1.293E-09 (1.0E-06 NORMAL)

PHOTON 02 S-M ENERGY RANGE	W2 1ST POS.	W2 2ND POS.	W2 1ST MFC.	BETA	NO GAMMA	NO VIR-R01	NO P.E.	O- P4010-NEY (FMS)	FWF-FRE N	O P.E.	TOTAL AIR
32 5.60 6.67E-33	0.	0.	0.	7.41E-25	5.05E-24	0.	0.	1.37E-16	5.53E-12	5.03E-11	0.29E-11
53 5.50 0.	0.	0.	0.	9.53E-25	4.89E-24	0.	0.	1.30E-16	5.83E-12	6.10E-11	1.94E-11
54 5.45 0.	0.	0.	0.	8.94E-25	3.77E-24	0.	0.	1.30E-16	6.17E-12	6.40E-11	1.97E-11
55 5.30 0.	0.	0.	0.	8.94E-25	4.00E-24	0.	0.	1.40E-16	6.52E-12	6.70E-11	1.94E-11
56 5.20 0.	0.	0.	0.	9.61E-25	3.56E-24	0.	0.	1.40E-16	6.91E-12	7.01E-11	2.00E-11
57 5.10 0.	0.	0.	0.	9.58E-25	4.59E-24	0.	0.	1.42E-16	7.33E-12	7.32E-11	2.04E-11
58 5.00 9.04E-26	0.	0.	0.	9.74E-25	4.20E-24	0.	0.	1.43E-16	7.79E-12	7.64E-11	2.06E-11
59 4.90 2.18E-26	0.	0.	0.	9.72E-25	4.66E-24	0.	0.	1.44E-16	8.27E-12	7.96E-11	2.12E-11
60 4.80 6.04E-26	0.	0.	0.	1.04E-24	4.37E-24	0.	0.	1.45E-16	8.80E-12	8.29E-11	2.16E-11
61 4.70 5.50E-26	0.	0.	0.	1.07E-24	3.96E-24	0.	0.	1.46E-16	9.36E-12	8.75E-11	2.27E-11
62 4.60 7.92E-26	0.	0.	0.	1.07E-24	3.68E-24	0.	0.	1.48E-16	1.00E-11	9.34E-11	2.28E-11
63 4.50 7.92E-26	0.	0.	0.	9.75E-25	2.70E-24	0.	0.	1.49E-16	1.07E-11	9.94E-11	2.39E-11
64 4.40 8.44E-26	0.	0.	0.	9.77E-25	1.87E-24	0.	0.	1.50E-16	1.15E-11	1.08E-10	2.36E-11
65 4.30 7.90E-26	0.	0.	0.	9.30E-25	1.17E-24	0.	0.	1.51E-16	1.23E-11	1.19E-10	2.14E-11
66 4.20 7.42E-26	0.	0.	0.	9.79E-25	8.23E-25	0.	0.	1.52E-16	1.32E-11	1.28E-10	1.46E-11
67 4.10 6.95E-26	0.	0.	0.	9.53E-25	8.23E-25	0.	0.	1.53E-16	1.42E-11	1.38E-10	1.12E-11
68 4.00 6.48E-26	0.	0.	0.	9.20E-25	5.63E-26	0.	0.	1.54E-16	1.53E-11	1.49E-10	1.50E-10
69 3.90 5.42E-26	0.	0.	0.	9.35E-25	8.23E-25	0.	0.	1.55E-16	1.65E-11	1.61E-10	1.17E-10
70 3.80 5.94E-26	0.	0.	0.	9.10E-25	8.23E-25	0.	0.	1.56E-16	1.79E-11	1.74E-10	1.23E-10
71 3.70 5.27E-26	0.	0.	0.	9.58E-25	7.73E-25	0.	0.	1.57E-16	1.94E-11	1.90E-10	1.33E-10
72 3.60 4.74E-26	0.	0.	0.	9.58E-25	6.34E-25	0.	0.	1.58E-16	2.10E-11	2.07E-10	1.43E-10
73 3.50 4.27E-26	0.	0.	0.	9.58E-25	6.34E-25	0.	0.	1.59E-16	2.27E-11	2.25E-10	1.53E-10
74 3.40 4.05E-26	0.	0.	0.	9.58E-25	6.34E-25	0.	0.	1.60E-16	2.45E-11	2.45E-10	1.63E-10
75 3.30 3.23E-26	0.	0.	0.	9.58E-25	6.34E-25	0.	0.	1.61E-16	2.64E-11	2.64E-10	1.73E-10
76 3.20 2.81E-26	0.	0.	0.	9.58E-25	6.34E-25	0.	0.	1.62E-16	2.84E-11	2.84E-10	1.83E-10
77 3.10 2.69E-26	0.	0.	0.	9.58E-25	6.34E-25	0.	0.	1.63E-16	3.05E-11	3.05E-10	1.93E-10
78 3.00 2.41E-26	0.	0.	0.	9.58E-25	6.34E-25	0.	0.	1.64E-16	3.27E-11	3.27E-10	2.03E-10
79 2.90 2.82E-26	0.	0.	0.	9.58E-25	6.34E-25	0.	0.	1.65E-16	3.50E-11	3.50E-10	2.13E-10
80 2.80 2.18E-26	0.	0.	0.	9.58E-25	6.34E-25	0.	0.	1.66E-16	3.74E-11	3.74E-10	2.23E-10
81 2.70 1.39E-26	0.	0.	0.	9.58E-25	6.34E-25	0.	0.	1.67E-16	4.00E-11	4.00E-10	2.33E-10
82 2.60 6.34E-26	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.68E-16	4.27E-11	4.27E-10	2.43E-10
83 2.50 4.44E-27	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.69E-16	4.55E-11	4.55E-10	2.53E-10
84 2.40 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.70E-16	4.84E-11	4.84E-10	2.63E-10
85 2.30 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.71E-16	5.14E-11	5.14E-10	2.73E-10
86 2.20 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.72E-16	5.45E-11	5.45E-10	2.83E-10
87 2.10 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.73E-16	5.77E-11	5.77E-10	2.93E-10
88 2.00 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.74E-16	6.10E-11	6.10E-10	3.03E-10
89 1.90 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.75E-16	6.44E-11	6.44E-10	3.13E-10
90 1.80 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.76E-16	6.79E-11	6.79E-10	3.23E-10
91 1.70 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.77E-16	7.15E-11	7.15E-10	3.33E-10
92 1.60 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.78E-16	7.52E-11	7.52E-10	3.43E-10
93 1.50 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.79E-16	7.90E-11	7.90E-10	3.53E-10
94 1.40 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.80E-16	8.29E-11	8.29E-10	3.63E-10
95 1.30 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.81E-16	8.69E-11	8.69E-10	3.73E-10
96 1.20 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.82E-16	9.10E-11	9.10E-10	3.83E-10
97 1.10 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.83E-16	9.52E-11	9.52E-10	3.93E-10
98 1.00 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.84E-16	9.95E-11	9.95E-10	4.03E-10
99 0.90 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.85E-16	1.04E-10	1.04E-09	4.13E-10
100 0.80 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.86E-16	1.14E-10	1.14E-09	4.23E-10
101 0.70 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.87E-16	1.24E-10	1.24E-09	4.33E-10
102 0.60 0.	0.	0.	0.	9.58E-25	6.34E-26	0.	0.	1.88E-16	1.35E-10	1.35E-09	4.43E-10

ABSORPTION COEFFICIENT OF HEATED AIR (INVERSE (M-1))				DENSITY (GM/CC) 1.203E-02 (1.0E-01 NORMAL)			
TEMPERATURE (DEGREES M) 18000.	NO	NO	NO	NO	0-	FREE-FREE	M
	RETA	GAMMA		2	PHOTO-DET (1/MS)	P.T.	P.E.
PHOTON 02 S-R	02 S-R	02 S-R	02 S-R	02 S-R	02 S-R	02 S-R	02 S-R
ENERGY RANGE	ENERGY RANGE	ENERGY RANGE	ENERGY RANGE	ENERGY RANGE	ENERGY RANGE	ENERGY RANGE	ENERGY RANGE
E.V.	E.V.	E.V.	E.V.	E.V.	E.V.	E.V.	E.V.
1 10.70 0.	1.34E 00	0.	0.	0.	3.09E 00	1.24E-01	2.04E 02
2 10.60 0.	1.24E 00	0.	0.	0.	3.09E 00	1.30E-01	2.04E 02
3 10.50 0.	1.25E 00	0.	0.	0.	3.09E 00	1.33E-01	2.04E 02
4 10.40 0.	1.10E 00	0.	0.	0.	3.09E 00	1.37E-01	2.04E 02
5 10.30 0.	1.04E 00	0.	0.	0.	3.09E 00	1.41E-01	2.04E 02
6 10.20 0.	1.00E 00	0.	0.	0.	3.09E 00	1.44E-01	2.04E 02
7 10.10 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
8 10.00 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
9 9.90 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
10 9.80 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
11 9.70 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
12 9.60 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
13 9.50 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
14 9.40 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
15 9.30 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
16 9.20 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
17 9.10 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
18 9.00 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
19 8.90 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
20 8.80 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
21 8.70 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
22 8.60 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
23 8.50 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
24 8.40 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
25 8.30 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
26 8.20 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
27 8.10 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
28 8.00 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
29 7.90 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
30 7.80 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
31 7.70 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
32 7.60 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
33 7.50 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
34 7.40 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
35 7.30 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
36 7.20 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
37 7.10 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
38 7.00 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
39 6.90 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
40 6.80 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
41 6.70 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
42 6.60 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
43 6.50 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
44 6.40 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
45 6.30 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
46 6.20 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
47 6.10 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
48 6.00 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
49 5.90 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
50 5.80 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02
51 5.70 0.	1.01E 00	0.	0.	0.	3.09E 00	1.50E-01	2.04E 02

PHOTON	OP	3-M	Q2	1ST	PBS	2ND	PBS	420	NO	NO	NO	NU	NO	0-	0	0	TOTAL						
ENERGY	RANGE							WLS	META	GAMMA	VIB-ROT		2	PHOTO-NET	FREE-FREE	A	P.E.						
52	5.40	3.20E-11	6.	0.	0.	0.	0.	0.	4.30E-03	4.24E-02	0.	0.	0.	4.15E	00	0.93E-01	4.40E	00	2.14E	00	1.17E	01	
53	5.50	0.	0.	0.	0.	0.	0.	0.	4.03E-03	5.03E-02	0.	0.	0.	4.17E	00	0.43E-01	4.57E	00	2.14E	00	1.10E	01	
54	5.60	0.	0.	0.	0.	0.	0.	0.	7.35E-03	3.25E-02	0.	0.	0.	4.35E	00	0.97E-01	4.60E	00	2.10E	00	1.21E	01	
55	5.70	0.	0.	0.	0.	0.	0.	0.	7.57E-03	4.04E-02	0.	0.	0.	4.22E	00	1.05E	00	4.81E	00	2.22E	00	1.24E	01
56	5.80	0.	0.	0.	0.	0.	0.	0.	8.40E-03	3.05E-02	0.	0.	0.	4.25E	00	1.12E	00	4.94E	00	2.24E	00	1.26E	01
57	5.90	0.	0.	0.	0.	0.	0.	0.	8.15E-03	3.92E-02	0.	0.	0.	4.20E	00	1.10E	00	5.08E	00	2.30E	00	1.20E	01
58	5.90	0.	0.	0.	0.	0.	0.	0.	7.46E-03	3.69E-02	0.	0.	0.	4.32E	00	1.24E	00	5.24E	00	2.34E	00	1.32E	01
59	4.90	3.10E-03	0.	0.	0.	0.	0.	0.	8.32E-03	4.02E-02	0.	0.	0.	4.35E	00	1.36E	00	5.42E	00	2.50E	00	1.35E	01
60	4.80	2.00E-03	0.	0.	0.	0.	0.	0.	8.64E-03	3.76E-02	0.	0.	0.	4.37E	00	1.42E	00	5.62E	00	2.53E	00	1.39E	01
61	4.70	2.70E-03	0.	0.	0.	0.	0.	0.	8.95E-03	3.43E-02	0.	0.	0.	4.33E	00	1.52E	00	5.82E	00	2.60E	00	1.53E	01
62	4.60	3.45E-03	0.	0.	0.	0.	0.	0.	9.20E-03	3.12E-02	0.	0.	0.	4.46E	00	1.63E	00	6.04E	00	2.64E	00	1.57E	01
63	4.50	4.65E-03	0.	0.	0.	0.	0.	0.	9.48E-03	2.35E-02	0.	0.	0.	4.50E	00	1.73E	00	6.34E	00	2.64E	00	1.53E	01
64	4.40	4.42E-03	0.	0.	0.	0.	0.	0.	9.48E-03	1.61E-02	0.	0.	0.	4.53E	00	1.85E	00	6.67E	00	2.70E	00	1.58E	01
65	4.30	4.47E-03	0.	0.	0.	0.	0.	0.	8.18E-03	1.01E-02	0.	0.	0.	4.37E	00	1.96E	00	7.01E	00	2.77E	00	1.53E	01
66	4.20	3.72E-03	0.	0.	0.	0.	0.	0.	8.53E-03	7.11E-03	0.	0.	0.	4.31E	00	2.14E	00	7.35E	00	2.85E	00	1.73E	01
67	4.10	3.49E-03	0.	0.	0.	0.	0.	0.	9.36E-03	1.99E-03	0.	0.	0.	4.63E	00	2.30E	00	7.69E	00	2.80E	00	1.76E	01
68	4.00	3.42E-03	0.	0.	0.	0.	0.	0.	8.80E-03	1.99E-03	0.	0.	0.	4.64E	00	2.40E	00	8.04E	00	2.81E	00	1.69E	01
69	3.90	2.83E-03	0.	0.	0.	0.	0.	0.	7.34E-03	5.66E-04	0.	0.	0.	4.63E	00	2.67E	00	7.83E	00	3.12E	00	1.62E	01
70	3.80	3.10E-03	0.	0.	0.	0.	0.	0.	7.75E-03	4.05E-04	0.	0.	0.	4.61E	00	2.80E	00	7.94E	00	3.10E	00	1.62E	01
71	3.70	2.70E-03	0.	0.	0.	0.	0.	0.	3.94E-01	2.													

[illegible]

ABSORPTION COEFFICIENT OF HEATED AIR (INVERSE CM.)

[illegible]

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-M WAVELENGTH		TEMPERATURE DEGREES K		DENSITY (GM/CC)		PHOTO-021 (ICMS)		FREE-FREE		TOTAL AIR	
1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	WAVELENGTH	DENSITY	PHOTO-021	FREE-FREE	FREE-FREE	DENSITY	FREE-FREE	TOTAL AIR
52	5.40	1.76E-15	0.	3.05E-07	1.97E-04	0.	2.42E-03	5.50E-03	2.04E-02	1.97E-02	5.21E-02
53	5.53	0.	0.	3.73E-07	1.33E-04	0.	2.43E-03	5.90E-03	2.90E-02	1.90E-02	5.32E-02
54	5.63	0.	0.	3.63E-07	1.00E-04	0.	2.45E-03	6.24E-03	2.97E-02	1.00E-02	5.55E-02
55	5.73	0.	0.	3.52E-07	1.00E-04	0.	2.46E-03	6.60E-03	3.05E-02	1.03E-02	5.59E-02
56	5.83	0.	0.	3.40E-07	1.02E-04	0.	2.48E-03	6.99E-03	3.13E-02	1.06E-02	5.73E-02
57	5.93	0.	0.	3.28E-07	1.02E-04	0.	2.50E-03	7.42E-03	3.22E-02	1.09E-02	5.90E-02
58	6.03	2.42E-08	0.	3.16E-07	1.02E-04	0.	2.52E-03	7.89E-03	3.32E-02	1.12E-02	6.08E-02
59	6.13	2.42E-08	0.	3.04E-07	1.02E-04	0.	2.54E-03	8.37E-03	3.44E-02	1.15E-02	6.27E-02
60	6.23	2.42E-08	0.	2.92E-07	1.02E-04	0.	2.56E-03	8.85E-03	3.56E-02	1.18E-02	6.46E-02
61	6.33	2.42E-08	0.	2.80E-07	1.02E-04	0.	2.58E-03	9.33E-03	3.68E-02	1.21E-02	6.65E-02
62	6.43	2.42E-08	0.	2.68E-07	1.02E-04	0.	2.60E-03	9.81E-03	3.80E-02	1.24E-02	6.84E-02
63	6.53	2.42E-08	0.	2.56E-07	1.02E-04	0.	2.62E-03	1.03E-02	3.92E-02	1.27E-02	7.03E-02
64	6.63	2.42E-08	0.	2.44E-07	1.02E-04	0.	2.64E-03	1.08E-02	4.04E-02	1.30E-02	7.22E-02
65	6.73	2.42E-08	0.	2.32E-07	1.02E-04	0.	2.66E-03	1.13E-02	4.16E-02	1.33E-02	7.41E-02
66	6.83	2.42E-08	0.	2.20E-07	1.02E-04	0.	2.68E-03	1.18E-02	4.28E-02	1.36E-02	7.60E-02
67	6.93	2.42E-08	0.	2.08E-07	1.02E-04	0.	2.70E-03	1.23E-02	4.40E-02	1.39E-02	7.79E-02
68	7.03	2.42E-08	0.	1.96E-07	1.02E-04	0.	2.72E-03	1.28E-02	4.52E-02	1.42E-02	7.98E-02
69	7.13	2.42E-08	0.	1.84E-07	1.02E-04	0.	2.74E-03	1.33E-02	4.64E-02	1.45E-02	8.17E-02
70	7.23	2.42E-08	0.	1.72E-07	1.02E-04	0.	2.76E-03	1.38E-02	4.76E-02	1.48E-02	8.36E-02
71	7.33	2.42E-08	0.	1.60E-07	1.02E-04	0.	2.78E-03	1.43E-02	4.88E-02	1.51E-02	8.55E-02
72	7.43	2.42E-08	0.	1.48E-07	1.02E-04	0.	2.80E-03	1.48E-02	5.00E-02	1.54E-02	8.74E-02
73	7.53	2.42E-08	0.	1.36E-07	1.02E-04	0.	2.82E-03	1.53E-02	5.12E-02	1.57E-02	8.93E-02
74	7.63	2.42E-08	0.	1.24E-07	1.02E-04	0.	2.84E-03	1.58E-02	5.24E-02	1.60E-02	9.12E-02
75	7.73	2.42E-08	0.	1.12E-07	1.02E-04	0.	2.86E-03	1.63E-02	5.36E-02	1.63E-02	9.31E-02
76	7.83	2.42E-08	0.	1.00E-07	1.02E-04	0.	2.88E-03	1.68E-02	5.48E-02	1.66E-02	9.50E-02
77	7.93	2.42E-08	0.	8.8E-08	1.02E-04	0.	2.90E-03	1.73E-02	5.60E-02	1.69E-02	9.69E-02
78	8.03	2.42E-08	0.	7.6E-08	1.02E-04	0.	2.92E-03	1.78E-02	5.72E-02	1.72E-02	9.88E-02
79	8.13	2.42E-08	0.	6.4E-08	1.02E-04	0.	2.94E-03	1.83E-02	5.84E-02	1.75E-02	1.00E-01
80	8.23	2.42E-08	0.	5.2E-08	1.02E-04	0.	2.96E-03	1.88E-02	5.96E-02	1.78E-02	1.02E-01
81	8.33	2.42E-08	0.	4.0E-08	1.02E-04	0.	2.98E-03	1.93E-02	6.08E-02	1.81E-02	1.04E-01
82	8.43	2.42E-08	0.	2.8E-08	1.02E-04	0.	3.00E-03	1.98E-02	6.20E-02	1.84E-02	1.06E-01
83	8.53	2.42E-08	0.	1.6E-08	1.02E-04	0.	3.02E-03	2.03E-02	6.32E-02	1.87E-02	1.08E-01
84	8.63	2.42E-08	0.	4.0E-08	1.02E-04	0.	3.04E-03	2.08E-02	6.44E-02	1.90E-02	1.10E-01
85	8.73	2.42E-08	0.	3.16E-08	1.02E-04	0.	3.06E-03	2.13E-02	6.56E-02	1.93E-02	1.12E-01
86	8.83	2.42E-08	0.	2.32E-08	1.02E-04	0.	3.08E-03	2.18E-02	6.68E-02	1.96E-02	1.14E-01
87	8.93	2.42E-08	0.	1.48E-08	1.02E-04	0.	3.10E-03	2.23E-02	6.80E-02	1.99E-02	1.16E-01
88	9.03	2.42E-08	0.	6.0E-08	1.02E-04	0.	3.12E-03	2.28E-02	6.92E-02	2.02E-02	1.18E-01
89	9.13	2.42E-08	0.	2.16E-08	1.02E-04	0.	3.14E-03	2.33E-02	7.04E-02	2.05E-02	1.20E-01
90	9.23	2.42E-08	0.	1.32E-08	1.02E-04	0.	3.16E-03	2.38E-02	7.16E-02	2.08E-02	1.22E-01
91	9.33	2.42E-08	0.	4.8E-08	1.02E-04	0.	3.18E-03	2.43E-02	7.28E-02	2.11E-02	1.24E-01
92	9.43	2.42E-08	0.	1.48E-08	1.02E-04	0.	3.20E-03	2.48E-02	7.40E-02	2.14E-02	1.26E-01
93	9.53	2.42E-08	0.	1.64E-08	1.02E-04	0.	3.22E-03	2.53E-02	7.52E-02	2.17E-02	1.28E-01
94	9.63	2.42E-08	0.	1.80E-08	1.02E-04	0.	3.24E-03	2.58E-02	7.64E-02	2.20E-02	1.30E-01
95	9.73	2.42E-08	0.	1.96E-08	1.02E-04	0.	3.26E-03	2.63E-02	7.76E-02	2.23E-02	1.32E-01
96	9.83	2.42E-08	0.	2.12E-08	1.02E-04	0.	3.28E-03	2.68E-02	7.88E-02	2.26E-02	1.34E-01
97	9.93	2.42E-08	0.	2.28E-08	1.02E-04	0.	3.30E-03	2.73E-02	8.00E-02	2.29E-02	1.36E-01
98	10.03	2.42E-08	0.	2.44E-08	1.02E-04	0.	3.32E-03	2.78E-02	8.12E-02	2.32E-02	1.38E-01
99	10.13	2.42E-08	0.	2.60E-08	1.02E-04	0.	3.34E-03	2.83E-02	8.24E-02	2.35E-02	1.40E-01
100	10.23	2.42E-08	0.	2.76E-08	1.02E-04	0.	3.36E-03	2.88E-02	8.36E-02	2.38E-02	1.42E-01
101	10.33	2.42E-08	0.	2.92E-08	1.02E-04	0.	3.38E-03	2.93E-02	8.48E-02	2.41E-02	1.44E-01
102	10.43	2.42E-08	0.	3.08E-08	1.02E-04	0.	3.40E-03	2.98E-02	8.60E-02	2.44E-02	1.46E-01

ABSORPTION COEFFICIENT OF HEATED AIR (INVERSE CM.)									
TEMPERATURE (DEGREES K) 10000. DENSITY (GM/CC) 1.292E-05 (10.0E-03 NORMAL)									
PHOTON ENERGY E.V.	02 S-M CMY.	02 S-M CMY.	02 S-M CMY.	NO DELTA	NO GAMMA	NO PHOTO-MET (THERM)	0- FREQ-INDEX	N P.E.	0 TOTAL AIR P.E.
1 10.73 0.	0.	0.	7.20E-00	0.	0.	0.	1.92E-05	2.97E-05	6.54E-02
2 10.60 0.	0.	0.	4.33E-00	0.	0.	0.	1.92E-05	3.04E-05	2.14E-01
3 10.51 0.	0.	0.	6.78E-00	0.	0.	0.	1.92E-05	3.15E-05	6.77E-00
4 10.40 0.	0.	0.	4.37E-00	0.	0.	0.	1.92E-05	3.20E-05	2.10E-01
5 10.30 0.	0.	0.	5.94E-00	0.	0.	0.	1.92E-05	3.30E-05	6.77E-00
6 10.20 0.	0.	0.	5.79E-00	0.	0.	0.	1.92E-05	3.40E-05	2.10E-01
7 10.10 0.	0.	0.	4.42E-00	0.	0.	0.	1.92E-05	3.50E-05	6.77E-00
8 10.00 0.	0.	0.	4.77E-00	0.	0.	0.	1.92E-05	3.60E-05	2.10E-01
9 9.90 0.	0.	0.	4.40E-00	0.	0.	0.	1.92E-05	3.70E-05	6.77E-00
10 9.80 0.	0.	0.	4.61E-00	0.	0.	0.	1.92E-05	3.80E-05	2.10E-01
11 9.70 0.	0.	0.	3.90E-00	0.	0.	0.	1.92E-05	4.00E-05	6.77E-00
12 9.60 0.	0.	0.	4.51E-00	0.	0.	0.	1.92E-05	4.10E-05	2.10E-01
13 9.50 0.	0.	0.	3.70E-00	0.	0.	0.	1.92E-05	4.20E-05	6.77E-00
14 9.40 0.	0.	0.	3.90E-00	0.	0.	0.	1.92E-05	4.30E-05	2.10E-01
15 9.30 0.	0.	0.	3.50E-00	0.	0.	0.	1.92E-05	4.40E-05	6.77E-00
16 9.20 0.	0.	0.	2.90E-00	0.	0.	0.	1.92E-05	4.50E-05	2.10E-01
17 9.10 0.	0.	0.	3.07E-00	0.	0.	0.	1.92E-05	4.60E-05	6.77E-00
18 9.00 0.	0.	0.	2.80E-00	0.	0.	0.	1.92E-05	4.70E-05	2.10E-01
19 8.90 0.	0.	0.	2.90E-00	0.	0.	0.	1.92E-05	4.80E-05	6.77E-00
20 8.80 0.	0.	0.	2.50E-00	0.	0.	0.	1.92E-05	4.90E-05	2.10E-01
21 8.70 0.	0.	0.	2.25E-00	0.	0.	0.	1.92E-05	5.00E-05	6.77E-00
22 8.60 0.	0.	0.	2.20E-00	0.	0.	0.	1.92E-05	5.10E-05	2.10E-01
23 8.50 0.	0.	0.	2.01E-00	0.	0.	0.	1.92E-05	5.20E-05	6.77E-00
24 8.40 0.	0.	0.	2.00E-00	0.	0.	0.	1.92E-05	5.30E-05	2.10E-01
25 8.30 0.	0.	0.	1.70E-00	0.	0.	0.	1.92E-05	5.40E-05	6.77E-00
26 8.20 0.	0.	0.	1.72E-00	0.	0.	0.	1.92E-05	5.50E-05	2.10E-01
27 8.10 0.	0.	0.	1.40E-00	0.	0.	0.	1.92E-05	5.60E-05	6.77E-00
28 8.00 0.	0.	0.	1.30E-00	0.	0.	0.	1.92E-05	5.70E-05	2.10E-01
29 7.90 0.	0.	0.	1.30E-00	0.	0.	0.	1.92E-05	5.80E-05	6.77E-00
30 7.80 0.	0.	0.	1.10E-00	0.	0.	0.	1.92E-05	5.90E-05	2.10E-01
31 7.70 0.	0.	0.	1.10E-00	0.	0.	0.	1.92E-05	6.00E-05	6.77E-00
32 7.60 0.	0.	0.	1.00E-00	0.	0.	0.	1.92E-05	6.10E-05	2.10E-01
33 7.50 0.	0.	0.	1.00E-00	0.	0.	0.	1.92E-05	6.20E-05	6.77E-00
34 7.40 0.	0.	0.	0.41E-00	0.	0.	0.	1.92E-05	6.30E-05	2.10E-01
35 7.30 0.	0.	0.	0.40E-00	0.	0.	0.	1.92E-05	6.40E-05	6.77E-00
36 7.20 0.	0.	0.	0.40E-00	0.	0.	0.	1.92E-05	6.50E-05	2.10E-01
37 7.10 0.	0.	0.	0.40E-00	0.	0.	0.	1.92E-05	6.60E-05	6.77E-00
38 7.00 0.	0.	0.	0.40E-00	0.	0.	0.	1.92E-05	6.70E-05	2.10E-01
39 6.90 0.	0.	0.	0.40E-00	0.	0.	0.	1.92E-05	6.80E-05	6.77E-00
40 6.80 0.	0.	0.	0.40E-00	0.	0.	0.	1.92E-05	6.90E-05	2.10E-01
41 6.70 0.	0.	0.	0.40E-00	0.	0.	0.	1.92E-05	7.00E-05	6.77E-00
42 6.60 0.	0.	0.	0.40E-00	0.	0.	0.	1.92E-05	7.10E-05	2.10E-01
43 6.50 0.	0.	0.	0.40E-00	0.	0.	0.	1.92E-05	7.20E-05	6.77E-00
44 6.40 0.	0.	0.	0.40E-00	0.	0.	0.	1.92E-05	7.30E-05	2.10E-01
45 6.30 0.	0.	0.	0.40E-00	0.	0.	0.	1.92E-05	7.40E-05	6.77E-00
46 6.20 0.	0.	0.	0.40E-00	0.	0.	0.	1.92E-05	7.50E-05	2.10E-01
47 6.10 0.	0.	0.	0.40E-00	0.	0.	0.	1.92E-05	7.60E-05	6.77E-00
48 6.00 0.	0.	0.	0.40E-00	0.	0.	0.	1.92E-05	7.70E-05	2.10E-01
49 5.90 0.	0.	0.	0.40E-00	0.	0.	0.	1.92E-05	7.80E-05	6.77E-00
50 5.80 0.	0.	0.	0.40E-00	0.	0.	0.	1.92E-05	7.90E-05	2.10E-01
51 5.70 0.	0.	0.	0.40E-00	0.	0.	0.	1.92E-05	8.00E-05	6.77E-00

[illegible]

TEMPERATURE (DEGREES K) 1A000. DENSITY (GM/CC) 1.293E-06 (10.0E-04 NORMAL)

[illegible]

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 1600. DENSITY (GM/CC) 1.293E-07 (10.0E-05 NORMAL)

PHOTON ID	S-R BANDS	1ST POS.	R2	R2 POS.	2ND POS.	W2+	1ST DEG.	NO	RETA	NO	GAMMA	VIB-ROT	NO	NO	0- PHOTON-DET	FREC-FREE (1 CMS)	N	P.E.	0	TOTAL AIR
52	5.40	1.21E-25	0.	0.	0.	0.	0.	1.51E-17	9.74E-17	0.	1.	5.97E-11	3.62E-08	1.81E-07	1.30E-07	3.48E-07	0.	0.	0.	0.
53	5.50	0.	0.	0.	0.	0.	0.	1.04E-17	9.83E-17	0.	0.	5.18E-11	3.62E-08	1.81E-07	1.32E-07	3.55E-07	0.	0.	0.	0.
54	5.60	0.	0.	0.	0.	0.	0.	1.70E-17	9.35E-17	0.	0.	5.12E-11	4.04E-08	1.91E-07	1.33E-07	3.65E-07	0.	0.	0.	0.
55	5.58	0.	0.	0.	0.	0.	0.	1.74E-17	9.20E-17	0.	0.	5.10E-11	4.27E-08	1.96E-07	1.35E-07	3.74E-07	0.	0.	0.	0.
56	5.20	0.	0.	0.	0.	0.	0.	1.07E-17	7.01E-17	0.	0.	5.19E-11	4.52E-08	2.02E-07	1.36E-07	3.85E-07	0.	0.	0.	0.
57	5.18	0.	0.	0.	0.	0.	0.	1.07E-17	9.80E-17	0.	0.	5.23E-11	4.40E-08	2.00E-07	1.40E-07	3.96E-07	0.	0.	0.	0.
58	5.50	1.04E-18	0.	0.	0.	0.	0.	1.71E-17	8.45E-17	0.	0.	5.28E-11	5.10E-08	2.15E-07	1.42E-07	4.08E-07	0.	0.	0.	0.
59	4.98	4.03E-18	0.	0.	0.	0.	0.	1.91E-17	8.24E-17	0.	0.	5.32E-11	5.42E-08	2.22E-07	1.45E-07	4.22E-07	0.	0.	0.	0.
60	4.68	7.50E-18	0.	0.	0.	0.	0.	2.05E-17	6.60E-17	0.	0.	5.37E-11	5.77E-08	2.31E-07	1.48E-07	4.36E-07	0.	0.	0.	0.
61	4.78	1.02E-17	0.	0.	0.	0.	0.	2.05E-17	7.00E-17	0.	0.	5.41E-11	6.15E-08	2.39E-07	1.52E-07	4.53E-07	0.	0.	0.	0.
62	4.60	1.41E-17	0.	0.	0.	0.	0.	2.11E-17	7.15E-17	0.	0.	5.45E-11	6.50E-08	2.50E-07	1.56E-07	4.71E-07	0.	0.	0.	0.
63	4.58	1.40E-17	0.	0.	0.	0.	0.	1.94E-17	5.39E-17	0.	0.	5.50E-11	7.02E-08	2.63E-07	1.60E-07	4.93E-07	0.	0.	0.	0.
64	4.93	1.54E-17	0.	0.	0.	0.	0.	1.95E-17	3.71E-17	0.	0.	5.54E-11	7.51E-08	2.78E-07	1.64E-07	5.15E-07	0.	0.	0.	0.
65	4.53	1.58E-17	0.	0.	0.	0.	0.	1.88E-17	2.53E-17	0.	0.	5.59E-11	8.09E-08	2.90E-07	1.68E-07	5.36E-07	0.	0.	0.	0.
66	4.73	1.45E-17	0.	0.	0.	0.	0.	1.98E-17	1.63E-17	0.	0.	5.63E-11	8.69E-08	3.05E-07	1.47E-07	5.56E-07	0.	0.	0.	0.
67	4.19	1.37E-17	0.	0.	0.	0.	0.	1.92E-17	4.54E-18	0.	0.	5.69E-11	9.30E-08	3.20E-07	1.71E-08	4.95E-07	0.	0.	0.	0.
68	4.19	1.37E-17	0.	0.	0.	0.	0.	1.86E-17	3.43E-18	0.	0.	5.67E-11	1.00E-07	3.30E-07	1.71E-08	4.95E-07	0.	0.	0.	0.
69	4.19	1.37E-17	0.	0.	0.	0.	0.	1.86E-17	3.43E-18	0.	0.	5.67E-11	1.00E-07	3.30E-07	1.71E-08	4.95E-07	0.	0.	0.	0.
70	4.19	1.37E-17	0.	0.	0.	0.	0.	1.86E-17	3.43E-18	0.	0.	5.67E-11	1.00E-07	3.30E-07	1.71E-08	4.95E-07	0.	0.	0.	0.
71	4.19	1.37E-17	0.	0.	0.	0.	0.	1.86E-17	3.43E-18	0.	0.	5.67E-11	1.00E-07							

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-30 (1.0E-05 NORMAL)		0- FREQ-FREE		PHOTO-DET (THERM)		P.E.		TOTAL AIR			
PHOTON 02 5-R	ENERGY BANDS	1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	BETA	GAMMA	VIB-ROT	NO	2	0	P.E.	0		
52	5.60 1.32E-20	0.	0.	1.57E-21	1.01E-20	0.	0.	0.	0.	0.	5.55E-14	4.25E-10	2.02E-09	1.39E-09	4.64E-09
53	5.59 0.	0.	0.	1.92E-21	9.41E-21	0.	0.	0.	0.	0.	5.59E-14	4.92E-10	2.93E-09	1.41E-09	4.78E-09
54	5.60 0.	0.	0.	1.77E-21	7.85E-21	0.	0.	0.	0.	0.	5.61E-14	4.74E-10	3.04E-09	1.43E-09	4.04E-09
55	5.60 0.	0.	0.	1.61E-21	7.40E-21	0.	0.	0.	0.	0.	5.65E-14	5.02E-10	3.45E-09	1.45E-09	5.11E-09
56	5.60 0.	0.	0.	1.05E-21	9.38E-21	0.	0.	0.	0.	0.	5.68E-14	5.32E-10	3.20E-09	1.47E-09	5.29E-09
57	5.60 0.	0.	0.	1.05E-21	9.38E-21	0.	0.	0.	0.	0.	5.73E-14	5.64E-10	3.41E-09	1.49E-09	5.47E-09
58	5.60 1.01E-22	0.	0.	1.70E-21	9.42E-21	0.	0.	0.	0.	0.	5.78E-14	5.99E-10	3.55E-09	1.51E-09	5.66E-09
59	5.60 4.01E-22	0.	0.	1.90E-21	9.42E-21	0.	0.	0.	0.	0.	5.83E-14	6.30E-10	3.69E-09	1.54E-09	5.87E-09
60	5.60 8.20E-22	0.	0.	2.14E-21	9.42E-21	0.	0.	0.	0.	0.	5.88E-14	6.78E-10	3.83E-09	1.58E-09	6.09E-09
61	5.60 1.74E-21	0.	0.	2.14E-21	9.42E-21	0.	0.	0.	0.	0.	5.92E-14	7.23E-10	4.02E-09	1.62E-09	6.30E-09
62	5.60 1.74E-21	0.	0.	2.20E-21	9.42E-21	0.	0.	0.	0.	0.	5.97E-14	7.72E-10	4.25E-09	1.66E-09	6.54E-09
63	5.60 1.74E-21	0.	0.	2.02E-21	9.42E-21	0.	0.	0.	0.	0.	6.02E-14	8.25E-10	4.51E-09	1.71E-09	7.04E-09
64	5.60 1.74E-21	0.	0.	2.03E-21	9.42E-21	0.	0.	0.	0.	0.	6.07E-14	8.81E-10	4.77E-09	1.76E-09	7.41E-09
65	5.60 1.74E-21	0.	0.	1.94E-21	9.42E-21	0.	0.	0.	0.	0.	6.12E-14	9.47E-10	5.04E-09	1.76E-09	7.75E-09
66	5.60 1.74E-21	0.	0.	2.04E-21	9.42E-21	0.	0.	0.	0.	0.	6.16E-14	1.02E-09	5.33E-09	1.76E-09	8.11E-09
67	5.60 1.74E-21	0.	0.	2.04E-21	9.42E-21	0.	0.	0.	0.	0.	6.19E-14	1.06E-09	5.64E-09	1.76E-09	8.42E-09
68	5.60 1.74E-21	0.	0.	1.93E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.10E-09	5.96E-09	1.76E-09	8.78E-09
69	5.60 1.74E-21	0.	0.	1.93E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.14E-09	6.28E-09	1.76E-09	9.14E-09
70	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.18E-09	6.61E-09	1.76E-09	9.50E-09
71	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.22E-09	6.94E-09	1.76E-09	9.86E-09
72	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.26E-09	7.27E-09	1.76E-09	1.02E-09
73	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.30E-09	7.60E-09	1.76E-09	1.06E-09
74	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.34E-09	7.93E-09	1.76E-09	1.10E-09
75	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.38E-09	8.26E-09	1.76E-09	1.14E-09
76	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.42E-09	8.59E-09	1.76E-09	1.18E-09
77	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.46E-09	8.92E-09	1.76E-09	1.22E-09
78	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.50E-09	9.25E-09	1.76E-09	1.26E-09
79	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.54E-09	9.58E-09	1.76E-09	1.30E-09
80	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.58E-09	9.91E-09	1.76E-09	1.34E-09
81	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.62E-09	1.02E-09	1.76E-09	1.38E-09
82	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.66E-09	1.05E-09	1.76E-09	1.42E-09
83	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.70E-09	1.08E-09	1.76E-09	1.46E-09
84	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.74E-09	1.11E-09	1.76E-09	1.50E-09
85	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.78E-09	1.14E-09	1.76E-09	1.54E-09
86	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.82E-09	1.17E-09	1.76E-09	1.58E-09
87	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.86E-09	1.20E-09	1.76E-09	1.62E-09
88	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.90E-09	1.23E-09	1.76E-09	1.66E-09
89	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.94E-09	1.26E-09	1.76E-09	1.70E-09
90	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	1.98E-09	1.29E-09	1.76E-09	1.74E-09
91	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	2.02E-09	1.32E-09	1.76E-09	1.78E-09
92	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	2.06E-09	1.35E-09	1.76E-09	1.82E-09
93	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	2.10E-09	1.38E-09	1.76E-09	1.86E-09
94	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	2.14E-09	1.41E-09	1.76E-09	1.90E-09
95	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	2.18E-09	1.44E-09	1.76E-09	1.94E-09
96	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	2.22E-09	1.47E-09	1.76E-09	1.98E-09
97	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	2.26E-09	1.50E-09	1.76E-09	2.02E-09
98	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	2.30E-09	1.53E-09	1.76E-09	2.06E-09
99	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	2.34E-09	1.56E-09	1.76E-09	2.10E-09
100	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	2.38E-09	1.59E-09	1.76E-09	2.14E-09
101	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	2.42E-09	1.62E-09	1.76E-09	2.18E-09
102	5.60 1.74E-21	0.	0.	1.92E-21	9.42E-21	0.	0.	0.	0.	0.	6.21E-14	2.46E-09	1.65E-09	1.76E-09	2.22E-09

ABSORPTION COEFFICIENT OF HEATED AIR (INVERSE CM.)
TEMPERATURE (DEGREES K) 18000. DENSITY (GM/CC) 1.293E-09 (1.0E-06 NORMAL)

PHOTON ENERGY E.V.	Q2 S-R CONT.	M2 R-M NO. 1	NO RET	NO GAMMA	NO 2	0- PHOTO-DET (1/MS)	FREE-FREE A	P.E.	0 P.E.	TOTAL AIR
1 10.70 0.	0.	1.43E-23	0.	0.	0.	7.41E-17	1.15E-12	2.35E-10	2.21E-11	2.56E-10
2 10.60 0.	0.	1.31E-23	0.	0.	0.	7.42E-17	1.10E-12	2.30E-10	2.20E-11	2.40E-10
3 10.50 0.	0.	1.12E-23	0.	0.	0.	7.43E-17	1.22E-12	2.30E-10	2.20E-11	2.41E-10
4 10.40 0.	0.	1.79E-23	0.	0.	0.	7.44E-17	1.24E-12	2.30E-10	2.19E-11	2.42E-10
5 10.30 0.	0.	1.10E-23	0.	0.	0.	7.45E-17	1.20E-12	2.41E-10	2.10E-11	2.44E-10
6 10.20 0.	0.	1.13E-23	0.	0.	0.	7.46E-17	1.33E-12	2.44E-10	2.10E-11	2.47E-10
7 10.10 0.	0.	1.07E-23	0.	0.	0.	7.47E-17	1.37E-12	2.47E-10	2.10E-11	2.48E-10
8 10.00 0.	0.	9.39E-24	0.	0.	0.	7.48E-17	1.41E-12	2.50E-10	2.10E-11	2.49E-10
9 9.90 0.	0.	9.44E-24	0.	0.	0.	7.49E-17	1.45E-12	2.52E-10	2.10E-11	2.50E-10
10 9.80 0.	0.	9.07E-24	0.	0.	0.	7.50E-17	1.50E-12	2.55E-10	2.10E-11	2.50E-10
11 9.70 0.	0.	7.85E-24	0.	0.	0.	7.52E-17	1.55E-12	2.58E-10	2.10E-11	2.52E-10
12 9.60 0.	0.	8.49E-24	0.	0.	0.	7.53E-17	1.60E-12	2.61E-10	2.10E-11	2.54E-10
13 9.50 0.	0.	7.26E-24	0.	0.	0.	7.54E-17	1.65E-12	2.64E-10	2.10E-11	2.57E-10
14 9.40 0.	0.	6.90E-24	0.	0.	0.	7.57E-17	1.70E-12	2.67E-10	2.10E-11	2.60E-10
15 9.30 0.	0.	7.07E-24	0.	0.	0.	7.60E-17	1.75E-12	2.70E-10	2.10E-11	2.63E-10
16 9.20 0.	0.	5.84E-24	0.	0.	0.	7.63E-17	1.82E-12	2.75E-10	2.10E-11	2.66E-10
17 9.10 0.	0.	4.04E-24	0.	0.	0.	7.66E-17	1.87E-12	2.78E-10	2.10E-11	2.70E-10
18 9.00 0.	0.	5.51E-24	0.	0.	0.	7.69E-17	1.94E-12	2.80E-10	2.10E-11	2.73E-10
19 8.90 0.	0.	5.10E-24	0.	0.	0.	7.71E-17	2.01E-12	2.80E-10	2.10E-11	2.80E-10
20 8.80 0.	0.	5.02E-24	0.	0.	0.	7.74E-17	2.06E-12	2.83E-10	2.10E-11	2.83E-10
21 8.70 0.	0.	4.37E-24	0.	0.	0.	7.77E-17	2.15E-12	2.84E-10	2.10E-11	2.86E-10
22 8.60 0.	0.	4.51E-24	0.	0.	0.	7.79E-17	2.23E-12	2.88E-10	2.10E-11	2.89E-10
23 8.50 0.	0.	3.96E-24	0.	0.	0.	7.82E-17	2.31E-12	2.88E-10	2.10E-11	2.89E-10
24 8.40 0.	0.	3.94E-24	0.	0.	0.	7.84E-17	2.39E-12	2.92E-10	2.10E-11	2.92E-10
25 8.30 0.	0.	3.35E-24	0.	0.	0.	7.90E-17	2.46E-12	2.94E-10	2.10E-11	2.94E-10
26 8.20 0.	0.	3.30E-24	0.	0.	0.	7.94E-17	2.57E-12	2.94E-10	2.10E-11	2.97E-10
27 8.10 0.	0.	2.94E-24	0.	0.	0.	7.98E-17	2.67E-12	2.97E-10	2.10E-11	2.99E-10
28 8.00 0.	0.	2.96E-24	0.	0.	0.	8.03E-17	2.77E-12	2.97E-10	2.10E-11	2.99E-10
29 7.90 0.	0.	2.55E-24	0.	0.	0.	8.07E-17	2.86E-12	2.98E-10	2.10E-11	2.99E-10
30 7.80 0.	0.	7.85E-24	0.	0.	0.	8.11E-17	2.95E-12	2.98E-10	2.10E-11	2.99E-10
31 7.70 0.	0.	2.33E-24	0.	0.	0.	8.15E-17	3.11E-12	2.98E-10	2.10E-11	2.99E-10
32 7.60 0.	0.	2.22E-24	0.	0.	0.	8.19E-17	3.23E-12	2.98E-10	2.10E-11	2.99E-10
33 7.50 0.	0.	2.04E-24	0.	0.	0.	8.23E-17	3.37E-12	2.98E-10	2.10E-11	2.99E-10
34 7.40 0.	0.	1.85E-24	0.	0.	0.	8.28E-17	3.50E-12	2.98E-10	2.10E-11	2.99E-10
35 7.30 0.	0.	1.76E-24	0.	0.	0.	8.32E-17	3.64E-12	2.98E-10	2.10E-11	2.99E-10
36 7.20 0.	0.	1.59E-24	0.	0.	0.	8.37E-17	3.81E-12	2.98E-10	2.10E-11	2.99E-10
37 7.10 0.	0.	1.53E-24	0.	0.	0.	8.44E-17	3.97E-12	2.98E-10	2.10E-11	2.99E-10
38 7.00 0.	0.	1.41E-24	0.	0.	0.	8.51E-17	4.14E-12	2.98E-10	2.10E-11	2.99E-10
39 6.90 0.	0.	1.29E-24	0.	0.	0.	8.57E-17	4.33E-12	2.98E-10	2.10E-11	2.99E-10
40 6.80 0.	0.	1.25E-24	0.	0.	0.	8.64E-17	4.52E-12	2.98E-10	2.10E-11	2.99E-10
41 6.70 0.	0.	1.10E-24	0.	0.	0.	8.71E-17	4.73E-12	2.98E-10	2.10E-11	2.99E-10
42 6.60 0.	0.	9.94E-25	0.	0.	0.	8.78E-17	4.95E-12	2.98E-10	2.10E-11	2.99E-10
43 6.50 0.	0.	7.86E-25	0.	0.	0.	8.85E-17	5.18E-12	2.98E-10	2.10E-11	2.99E-10
44 6.40 0.	0.	5.45E-25	0.	0.	0.	8.92E-17	5.43E-12	2.98E-10	2.10E-11	2.99E-10
45 6.30 0.	0.	3.42E-25	0.	0.	0.	9.00E-17	5.69E-12	2.98E-10	2.10E-11	2.99E-10
46 6.20 0.	0.	1.90E-25	0.	0.	0.	9.08E-17	5.96E-12	2.98E-10	2.10E-11	2.99E-10
47 6.10 0.	0.	8.94E-26	0.	0.	0.	9.12E-17	6.24E-12	2.98E-10	2.10E-11	2.99E-10
48 6.00 0.	0.	7.71E-26	0.	0.	0.	9.19E-17	6.60E-12	2.98E-10	2.10E-11	2.99E-10
49 5.90 0.	0.	1.63E-27	0.	0.	0.	9.19E-17	6.94E-12	2.98E-10	2.10E-11	2.99E-10
50 5.80 0.	0.	4.11E-29	0.	0.	0.	9.05E-17	7.31E-12	2.98E-10	2.10E-11	2.99E-10
51 5.70 0.	0.	4.01E-32	0.	0.	0.	8.51E-17	7.70E-12	2.98E-10	2.10E-11	2.99E-10

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

[illegible]

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-M ENERGY BANDS E.V.		TEMPERATURE (DEGREES K) 19800.		DENSITY (GM/CC) 1.2935-02		1.0E 01 NORMAL		FREE-FREE PHOTO-DEY (IONS)		N P.E.		TOTAL AIR P.E.	
NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9	NO. 10	NO. 11	NO. 12	NO. 13	NO. 14
1 10.70 0.	9.00E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2 10.90 0.	0.23E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3 10.90 0.	0.34E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4 10.40 0.	7.95E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5 10.30 0.	6.97E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6 10.20 0.	7.23E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7 10.10 0.	6.03E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8 10.00 0.	6.74E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9 9.90 0.	8.20E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10 9.70 0.	5.66E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11 9.60 0.	5.10E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12 9.50 0.	5.52E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13 9.40 0.	4.75E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14 9.30 0.	4.52E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15 9.20 0.	4.68E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16 9.10 0.	3.88E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17 9.00 0.	3.99E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18 8.90 0.	3.65E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19 8.80 0.	3.40E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20 8.70 0.	3.35E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21 8.60 0.	2.93E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22 8.50 0.	3.03E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23 8.40 0.	2.67E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24 8.30 0.	2.20E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25 8.20 0.	2.31E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26 8.10 0.	2.81E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27 8.00 0.	2.83E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28 7.90 0.	1.74E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29 7.80 0.	1.83E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30 7.70 0.	1.62E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31 7.60 0.	1.55E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32 7.50 0.	1.44E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33 7.40 0.	1.30E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34 7.30 0.	1.24E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35 7.20 0.	1.13E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36 7.10 0.	1.09E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37 7.00 0.	1.00E-01	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38 6.90 0.	0.92E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39 6.80 0.	0.96E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40 6.70 0.	0.70E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41 6.60 0.	0.78E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42 6.50 0.	0.72E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43 6.40 0.	0.57E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44 6.30 0.	0.50E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45 6.20 0.	0.46E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46 6.10 0.	0.41E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47 6.00 0.	0.35E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48 5.90 0.	0.31E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49 5.80 0.	0.25E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50 5.70 0.	0.20E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51 5.60 0.	0.15E-02	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ASSUMPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES C.) 19000.														
PHOTON 02 3-R	02 3-R	M2 0-M	NO		TEMPERATURE (DEGREES C.) 1.0E 00 NORMAL		DENSITY (MG/CC) 1.293E-03		0- PHOTO-BEY (IONS)		FREE-FREE M		TOTAL AIR	
ENERGY RAYS	CONT.	NO. 1	BETA	GAMMA	W0	2	0-	PHOTO-BEY (IONS)	P.E.	P.E.	P.E.	P.E.	P.E.	P.E.
1 10.75 0.	0.	0.	0.	0.	0.	0.	0.	1.17E-01	1.79E-02	2.59E-01	2.73E-01	2.73E-01	2.73E-01	2.64E-01
2 10.60 0.	0.	0.	0.	0.	0.	0.	0.	1.17E-01	1.64E-02	1.10E-00	2.72E-01	2.72E-01	2.72E-01	1.51E-00
3 10.50 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	1.50E-02	1.10E-00	2.71E-01	2.71E-01	2.71E-01	1.52E-00
4 10.40 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	1.45E-02	1.11E-00	2.70E-01	2.70E-01	2.70E-01	1.52E-00
5 10.30 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	1.40E-02	1.11E-00	2.69E-01	2.69E-01	2.69E-01	1.52E-00
6 10.20 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	1.35E-02	1.11E-00	2.68E-01	2.68E-01	2.68E-01	1.52E-00
7 10.10 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	1.30E-02	1.11E-00	2.67E-01	2.67E-01	2.67E-01	1.52E-00
8 10.00 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	1.25E-02	1.11E-00	2.66E-01	2.66E-01	2.66E-01	1.52E-00
9 9.90 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	1.20E-02	1.12E-00	2.65E-01	2.65E-01	2.65E-01	1.53E-00
10 9.80 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	1.15E-02	1.12E-00	2.64E-01	2.64E-01	2.64E-01	1.53E-00
11 9.70 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	1.10E-02	1.13E-00	2.63E-01	2.63E-01	2.63E-01	1.53E-00
12 9.60 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	1.05E-02	1.13E-00	2.62E-01	2.62E-01	2.62E-01	1.53E-00
13 9.50 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	1.00E-02	1.13E-00	2.61E-01	2.61E-01	2.61E-01	1.54E-00
14 9.40 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	9.5E-03	1.13E-00	2.60E-01	2.60E-01	2.60E-01	1.54E-00
15 9.30 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	9.0E-03	1.13E-00	2.59E-01	2.59E-01	2.59E-01	1.54E-00
16 9.20 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	8.5E-03	1.13E-00	2.58E-01	2.58E-01	2.58E-01	1.54E-00
17 9.10 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	8.0E-03	1.13E-00	2.57E-01	2.57E-01	2.57E-01	1.54E-00
18 9.00 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	7.5E-03	1.13E-00	2.56E-01	2.56E-01	2.56E-01	1.54E-00
19 8.90 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	7.0E-03	1.13E-00	2.55E-01	2.55E-01	2.55E-01	1.54E-00
20 8.80 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	6.5E-03	1.13E-00	2.54E-01	2.54E-01	2.54E-01	1.54E-00
21 8.70 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	6.0E-03	1.13E-00	2.53E-01	2.53E-01	2.53E-01	1.54E-00
22 8.60 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	5.5E-03	1.13E-00	2.52E-01	2.52E-01	2.52E-01	1.54E-00
23 8.50 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	5.0E-03	1.13E-00	2.51E-01	2.51E-01	2.51E-01	1.54E-00
24 8.40 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	4.5E-03	1.13E-00	2.50E-01	2.50E-01	2.50E-01	1.54E-00
25 8.30 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	4.0E-03	1.13E-00	2.49E-01	2.49E-01	2.49E-01	1.54E-00
26 8.20 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	3.5E-03	1.13E-00	2.48E-01	2.48E-01	2.48E-01	1.54E-00
27 8.10 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	3.0E-03	1.13E-00	2.47E-01	2.47E-01	2.47E-01	1.54E-00
28 8.00 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	2.5E-03	1.13E-00	2.46E-01	2.46E-01	2.46E-01	1.54E-00
29 7.90 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	2.0E-03	1.13E-00	2.45E-01	2.45E-01	2.45E-01	1.54E-00
30 7.80 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	1.5E-03	1.13E-00	2.44E-01	2.44E-01	2.44E-01	1.54E-00
31 7.70 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	1.0E-03	1.13E-00	2.43E-01	2.43E-01	2.43E-01	1.54E-00
32 7.60 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	5E-04	1.13E-00	2.42E-01	2.42E-01	2.42E-01	1.54E-00
33 7.50 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.41E-01	2.41E-01	2.41E-01	1.54E-00
34 7.40 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.40E-01	2.40E-01	2.40E-01	1.54E-00
35 7.30 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.39E-01	2.39E-01	2.39E-01	1.54E-00
36 7.20 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.38E-01	2.38E-01	2.38E-01	1.54E-00
37 7.10 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.37E-01	2.37E-01	2.37E-01	1.54E-00
38 7.00 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.36E-01	2.36E-01	2.36E-01	1.54E-00
39 6.90 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.35E-01	2.35E-01	2.35E-01	1.54E-00
40 6.80 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.34E-01	2.34E-01	2.34E-01	1.54E-00
41 6.70 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.33E-01	2.33E-01	2.33E-01	1.54E-00
42 6.60 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.32E-01	2.32E-01	2.32E-01	1.54E-00
43 6.50 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.31E-01	2.31E-01	2.31E-01	1.54E-00
44 6.40 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.30E-01	2.30E-01	2.30E-01	1.54E-00
45 6.30 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.29E-01	2.29E-01	2.29E-01	1.54E-00
46 6.20 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.28E-01	2.28E-01	2.28E-01	1.54E-00
47 6.10 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.27E-01	2.27E-01	2.27E-01	1.54E-00
48 6.00 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.26E-01	2.26E-01	2.26E-01	1.54E-00
49 5.90 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.25E-01	2.25E-01	2.25E-01	1.54E-00
50 5.80 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.24E-01	2.24E-01	2.24E-01	1.54E-00
51 5.70 0.	0.	0.	0.	0.	0.	0.	0.	1.10E-01	0.	1.13E-00	2.23E-01	2.23E-01	2.23E-01	1.54E-00

PHOTON Q2 5-R	ENERGY	BAY5	1ST POS.	M2	M2	2ND POS.	M2	M2*	NO	BETA	NO	GAMMA	NO	VIB-ROT	NO	D- PHOTO-DET	FREE-FREE (IONS)	N	P.E.	TOTAL AIR
52	5.63	2.15E-13	0	0	0	3.74E-05	2.42E-04	0	0	1.25E-01	1.27E-01	5.51E-01	2.74E-01	1.00E-00	0	0	0	0	0	0
53	5.59	0	0	0	0	4.68E-05	2.25E-04	0	0	1.26E-01	1.34E-01	5.93E-01	2.77E-01	1.10E-00	0	0	0	0	0	0
54	5.49	0	0	0	0	4.23E-05	1.84E-04	0	0	1.26E-01	1.42E-01	5.74E-01	2.61E-01	1.13E-00	0	0	0	0	0	0
55	5.39	0	0	0	0	4.36E-05	2.31E-04	0	0	1.27E-01	1.59E-01	5.93E-01	2.80E-01	1.16E-00	0	0	0	0	0	0
56	5.20	0	0	0	0	4.71E-05	1.77E-04	0	0	1.28E-01	1.59E-01	6.09E-01	2.90E-01	1.19E-00	0	0	0	0	0	0
57	5.10	0	0	0	0	4.71E-05	2.27E-04	0	0	1.29E-01	1.69E-01	6.27E-01	2.94E-01	1.22E-00	0	0	0	0	0	0
58	5.04	2.97E-04	0	0	0	4.32E-05	2.15E-04	0	0	1.30E-01	1.79E-01	6.47E-01	2.99E-01	1.25E-00	0	0	0	0	0	0
59	4.98	7.24E-04	0	0	0	4.85E-05	2.37E-04	0	0	1.31E-01	1.91E-01	6.60E-01	3.05E-01	1.28E-00	0	0	0	0	0	0
60	4.90	1.37E-05	0	0	0	5.22E-05	2.22E-04	0	0	1.32E-01	2.02E-01	6.73E-01	3.11E-01	1.34E-00	0	0	0	0	0	0
61	4.74	1.06E-05	0	0	0	5.22E-05	2.22E-04	0	0	1.34E-01	2.17E-01	7.10E-01	3.20E-01	1.39E-00	0	0	0	0	0	0
62	4.67	2.57E-05	0	0	0	5.38E-05	1.83E-04	0	0	1.35E-01	2.31E-01	7.40E-01	3.28E-01	1.44E-00	0	0	0	0	0	0
63	4.54	2.72E-05	0	0	0	4.94E-05	1.58E-04	0	0	1.36E-01	2.47E-01	7.86E-01	3.37E-01	1.51E-00	0	0	0	0	0	0
64	4.47	2.92E-05	0	0	0	4.90E-05	9.44E-05	0	0	1.37E-01	2.65E-01	8.25E-01	3.46E-01	1.57E-00	0	0	0	0	0	0
65	4.37	2.78E-05	0	0	0	4.78E-05	5.97E-05	0	0	1.38E-01	2.86E-01	8.60E-01	3.55E-01	1.65E-00	0	0	0	0	0	0
66	4.28	2.60E-05	0	0	0	5.04E-05	4.16E-05	0	0	1.39E-01	3.09E-01	9.12E-01	3.65E-01	1.72E-00	0	0	0	0	0	0
67	4.19	2.45E-05	0	0	0	4.99E-05	1.16E-05	0	0	1.40E-01	3.28E-01	9.55E-01	3.68E-01	1.79E-00	0	0	0	0	0	0
68	4.07	2.27E-05	0	0	0	5.03E-05	8.74E-06	0	0	1.48E-01	3.53E-01	9.93E-01	3.64E-01	1.66E-00	0	0	0	0	0	0
69	3.90	1.94E-05	0	0	0	4.43E-05	1.29E-06	0	0	1.49E-01	3.81E-01	9.79E-01	3.69E-01	1.67E-00	0	0	0	0	0	0
70	3.80	2.13E-05	0	0	0	2.99E-05	4.15E-05	0	0	1.39E-01	4.15E-01	9.72E-01	3.70E-01	1.70E-00	0	0	0	0	0	0
71	3.74	1.91E-05	0	0	0	2.37E-05	6.72E-04	0	0	1.37E-01	4.42E-01	9.23E-01	3.73E-01	1.68E-00	0	0				

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		19000.		DENSITY (GM/CC) 1.293E-64		(1.0E-01 NORMAL)		NO		0-		FREE-FREE		N		0		TOTAL AIR	
PHOTON OF S-R		O2 S-R		CONT.		NO		BETA		NO		PHOTO-DET		IONS		P.E.		P.E.	
ENERGY HANDS		NO. 1		NO		NO		GAMMA		NO		NO		NO		NO		NO	
E.V.		NO. 1		NO		NO		GAMMA		NO		NO		NO		NO		NO	
1 10.79 0.	2.44E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2 10.44 0.	2.43E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3 10.58 0.	2.37E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4 10.40 0.	2.39E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5 10.32 0.	2.04E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6 10.20 0.	2.14E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7 10.10 0.	2.02E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8 10.03 0.	1.79E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9 9.94 0.	1.84E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10 9.80 0.	1.73E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11 9.70 0.	1.51E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12 9.60 0.	1.43E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13 9.50 0.	1.41E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14 9.40 0.	1.34E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15 9.30 0.	1.37E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16 9.20 0.	1.15E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17 9.10 0.	1.10E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18 9.00 0.	1.08E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19 8.90 0.	1.01E-05	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20 8.80 0.	9.91E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21 8.70 0.	8.67E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22 8.60 0.	8.90E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23 8.50 0.	7.91E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24 8.40 0.	7.89E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25 8.30 0.	6.75E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26 8.20 0.	6.84E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27 8.10 0.	5.95E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28 8.00 0.	6.01E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29 7.90 0.	5.21E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30 7.80 0.	4.79E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31 7.70 0.	4.97E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32 7.60 0.	4.26E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33 7.50 0.	3.65E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34 7.40 0.	3.66E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35 7.30 0.	3.33E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36 7.20 0.	3.21E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37 7.10 0.	2.97E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38 7.00 0.	2.74E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39 6.90 1.57E-09	2.65E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40 6.80 1.34E-09	2.33E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41 6.70 9.5E-10	2.11E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42 6.60 6.0E-10	1.69E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43 6.50 3.5E-10	1.10E-06	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44 6.40 2.0E-10	7.45E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45 6.30 1.1E-10	4.17E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46 6.20 5.3E-11	1.98E-07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47 6.10 2.4E-11	3.62E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48 6.00 1.04E-11	5.05E-08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49 5.90 2.5E-12	9.35E-11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50 5.80 3.2E-13	8.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51 5.70 2.1E-14	8.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-M		02 S-M		TEMPERATURE (DEGREES C) 1980.		DENSITY (GM/CC) 1.293E-05 (10.0E-03 NORMAL)		0- FREE-FREE		N		0		TOTAL AIR	
ENERGY BANDS		CONST.		NO. 1		NO. 2		PHOTO-REY		P.E.		P.E.			
E.V.															
1	10.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2	11.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3	11.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4	12.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5	12.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6	13.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7	13.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8	14.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9	14.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10	15.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11	15.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12	16.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13	16.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14	17.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15	17.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16	18.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17	18.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18	19.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19	19.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20	20.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21	20.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22	21.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23	21.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24	22.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25	22.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26	23.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27	23.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28	24.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29	24.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30	25.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31	25.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32	26.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33	26.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34	27.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35	27.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36	28.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37	28.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38	29.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39	29.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40	30.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41	30.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42	31.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43	31.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44	32.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45	32.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46	33.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47	33.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48	34.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49	34.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50	35.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51	35.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)
TEMPERATURE (DEGREES K) 10000, DENSITY (GM/CC) 1.203E-04 (10.0E-04 NORMAL)

PHOTON OF 5- ENERGY BANDS	1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	BETA	NO GAMMA	NO VIB-ROT	NO 2	0- PHOTO-DET (TIONS)	R P.E.	0 P.E.	TOTAL AIR	
52	5.07	2.03E-22	0.	0.	3.35E-14	2.14E-13	0.	0.	2.33E-00	3.35E-04	1.46E-05	1.00E-06	2.00E-05
53	5.50	0.	0.	0.	4.00E-14	2.00E-13	0.	0.	2.34E-00	3.54E-04	1.50E-05	1.01E-05	2.00E-05
54	5.40	0.	0.	0.	3.70E-14	1.04E-13	0.	0.	2.35E-00	3.74E-04	1.50E-05	1.07E-05	2.00E-05
55	5.35	0.	0.	0.	3.00E-14	2.00E-13	0.	0.	2.37E-00	3.96E-04	1.50E-05	1.04E-05	3.02E-05
56	5.27	0.	0.	0.	4.10E-14	1.50E-13	0.	0.	2.39E-00	4.19E-04	1.53E-05	1.05E-05	3.00E-05
57	5.10	0.	0.	0.	4.10E-14	2.00E-13	0.	0.	2.41E-00	4.45E-04	1.57E-05	1.07E-05	3.00E-05
58	5.00	3.01E-15	0.	0.	3.00E-14	1.91E-13	0.	0.	2.43E-00	4.73E-04	1.62E-05	1.09E-05	3.00E-05
59	4.00	0.57E-15	0.	0.	4.30E-14	2.10E-13	0.	0.	2.45E-00	5.02E-04	1.68E-05	1.11E-05	3.00E-05
60	4.00	1.00E-14	0.	0.	4.30E-14	1.91E-13	0.	0.	2.47E-00	5.35E-04	1.74E-05	1.13E-05	3.00E-05
61	4.70	2.00E-14	0.	0.	4.50E-14	1.07E-13	0.	0.	2.49E-00	5.70E-04	1.81E-05	1.15E-05	3.00E-05
62	4.60	3.00E-14	0.	0.	4.70E-14	1.00E-13	0.	0.	2.51E-00	6.09E-04	1.88E-05	1.17E-05	3.00E-05
63	4.50	3.50E-14	0.	4.00E-14	4.41E-14	1.20E-13	0.	0.	2.53E-00	6.51E-04	1.96E-05	1.20E-05	3.00E-05
64	4.40	3.00E-14	0.	1.20E-13	4.41E-14	0.42E-14	0.	0.	2.55E-00	6.96E-04	2.04E-05	1.22E-05	4.03E-05
65	4.30	3.40E-14	0.	4.00E-13	4.20E-14	3.31E-14	0.	0.	2.57E-00	7.47E-04	2.14E-05	1.25E-05	4.23E-05
66	4.20	3.43E-14	0.	1.20E-12	4.00E-14	3.70E-14	0.	0.	2.59E-00	8.02E-04	2.26E-05	1.28E-05	4.43E-05
67	4.10	3.23E-14	0.	3.00E-13	4.41E-14	1.00E-14	0.	0.	2.60E-00	8.63E-04	2.41E-05	1.31E-05	4.60E-05
68	4.00	2.99E-14	0.	1.00E-12	4.70E-14	7.70E-15	0.	0.	2.61E-00	9.30E-04	2.52E-05	1.34E-05	4.85E-05
69	3.90	2.54E-14	0.	0.90E-13	3.97E-14	2.91E-15	0.	0.	2.63E-00	1.00E-03	2.65E-05	1.37E-05	5.10E-05
70	3.80	2.01E-14	0.	1.40E-12	4.20E-14	0.	0.	0.	2.65E-00	1.09E-03	2.81E-05	1.40E-05	5.40E-05
71	3.70	2.52E-14	0.	1.40E-12	3.60E-14	0.	0.	0.	2.67E-00	1.18E-03	2.98E-05	1.43E-05	5.70E-05
72	3.60	2.20E-14	0.	1.40E-12	3.90E-14	0.	0.	0.	2.69E-00	1.28E-03	3.16E-05	1.46E-05	6.00E-05
73	3.50	2.13E-14	0.	1.40E-12	3.10E-14	0.	0.	0.	2.70E-00	1.39E-03	3.35E-05	1.49E-05	6.30E-05
74	3.40	1.93E-14	0.	0.87E-13	3.57E-14	0.	0.	0.	2.72E-00	1.52E-03	3.55E-05	1.52E-05	6.60E-05
75	3.30	1.59E-14	0.	0.87E-13	3.07E-14	0.	0.	0.	2.74E-00	1.67E-03	3.76E-05	1.55E-05	6.90E-05
76	3.20	1.40E-14	0.	0.87E-13	3.07E-14	0.	0.	0.	2.76E-00	1.83E-03	3.98E-05	1.58E-05	7.20E-05
77	3.10	1.35E-14	0.	4.50E-13	3.00E-14	0.	0.	0.	2.77E-00	2.02E-03	4.22E-05	1.61E-05	7.50E-05
78	3.00	1.21E-14	0.	2.87E-13	2.70E-14	0.	0.	0.	2.79E-00	2.23E-03	4.47E-05	1.64E-05	7.80E-05
79	2.90	1.02E-14	0.	1.70E-13	2.15E-14	0.	0.	0.	2.81E-00	2.47E-03	4.74E-05	1.67E-05	8.10E-05
80	2.80	1.00E-14	0.	0.80E-14	1.40E-14	0.	0.	0.	2.83E-00	2.75E-03	5.03E-05	1.70E-05	8.40E-05
81	2.70	7.00E-15	0.	0.80E-14	1.40E-14	0.	0.	0.	2.85E-00	3.07E-03	5.34E-05	1.73E-05	8.70E-05
82	2.60	3.35E-15	0.	1.94E-14	2.12E-14	3.60E-15	0.	0.	2.87E-00	3.45E-03	5.72E-05	1.76E-05	9.00E-05
83	2.50	2.36E-16	0.	2.00E-15	2.07E-14	0.	0.	0.	2.89E-00	3.88E-03	6.17E-05	1.79E-05	9.30E-05
84	2.40	0.	0.23E-14	0.	1.01E-14	0.43E-17	0.	0.	2.91E-00	4.40E-03	6.69E-05	1.82E-05	9.60E-05
85	2.30	0.	2.10E-13	0.	0.	0.	0.	0.	2.93E-00	5.01E-03	7.29E-05	1.85E-05	9.90E-05
86	2.20	0.	7.85E-13	0.	0.	0.	0.	0.	2.95E-00	5.74E-03	8.02E-05	1.88E-05	1.02E-04
87	2.10	0.	7.00E-13	0.	0.	0.	0.	0.	2.97E-00	6.62E-03	8.97E-05	1.91E-05	1.05E-04
88	2.00	0.	1.51E-12	0.	0.	0.	0.	0.	2.99E-00	7.68E-03	1.01E-04	1.94E-05	1.08E-04
89	1.90	0.	1.04E-12	0.	0.	0.	0.	0.	3.01E-00	8.97E-03	1.14E-04	1.97E-05	1.11E-04
90	1.80	0.	1.00E-12	0.	0.	0.	0.	0.	3.03E-00	1.05E-03	1.30E-04	2.00E-05	1.14E-04
91	1.70	0.	1.01E-12	0.	0.	0.	0.	0.	3.05E-00	1.24E-03	1.53E-04	2.03E-05	1.17E-04
92	1.60	0.	1.04E-12	0.	0.	0.	0.	0.	3.07E-00	1.52E-03	1.79E-04	2.06E-05	1.20E-04
93	1.50	0.	1.04E-12	0.	0.	0.	0.	0.	3.09E-00	1.86E-03	2.22E-04	2.09E-05	1.23E-04
94	1.40	0.	1.04E-12	0.	0.	0.	0.	0.	3.11E-00	2.30E-03	2.76E-04	2.12E-05	1.26E-04
95	1.30	0.	1.04E-12	0.	0.	0.	0.	0.	3.13E-00	2.80E-03	3.40E-04	2.15E-05	1.29E-04
96	1.20	0.	1.04E-12	0.	0.	0.	0.	0.	3.15E-00	3.40E-03	4.26E-04	2.18E-05	1.32E-04
97	1.10	0.	0.91E-13	0.	0.	0.	0.	0.	3.17E-00	4.10E-03	5.38E-04	2.21E-05	1.35E-04
98	1.00	0.	0.14E-13	0.	0.	0.	0.	0.	3.19E-00	4.90E-03	6.80E-04	2.24E-05	1.38E-04
99	0.90	0.	3.07E-13	0.	0.	0.	0.	0.	3.21E-00	5.80E-03	8.50E-04	2.27E-05	1.41E-04
100	0.80	0.	0.94E-14	0.	0.	0.	0.	0.	3.23E-00	6.90E-03	1.07E-04	2.30E-05	1.44E-04
101	0.70	0.	1.70E-14	0.	0.	0.	0.	0.	3.25E-00	8.20E-03	1.34E-04	2.33E-05	1.47E-04
102	0.60	0.	0.	0.	0.	0.	0.	0.	3.27E-00	9.70E-03	1.67E-04	2.36E-05	1.50E-04

ABSORPTION COEFFICIENT OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 19000.		DENSITY (GM/CC) 1.293E-07 (10.0E-05 NORMAL)		NO		U-		FREE-FREE		M		TOTAL AIR	
PHOTON Q2 S-R		C2 S-R		NO		PHOTO-DET (10MS)		P.E.		P.E.		P.E.	
ENERGY		CONTR.		BETA		NO		NO		NO		NO	
E.V.		NO. 1		GAMMA		NO		NO		NO		NO	
1 10.70 0.	0.	4.42E-16	0.	0.	0.	0.	0.	2.40E-11	5.19E-09	5.08E-07	1.07E-07	6.72E-07	0.
2 10.60 0.	0.	4.04E-16	0.	0.	0.	0.	0.	2.40E-11	5.15E-09	5.06E-07	1.07E-07	6.70E-07	0.
3 10.50 0.	0.	4.10E-16	0.	0.	0.	0.	0.	2.40E-11	5.07E-09	5.04E-07	1.07E-07	6.68E-07	0.
4 10.40 0.	0.	3.91E-16	0.	0.	0.	0.	0.	2.41E-11	5.02E-09	5.02E-07	1.07E-07	6.66E-07	0.
5 10.30 0.	0.	3.43E-16	0.	0.	0.	0.	0.	2.41E-11	5.02E-09	5.02E-07	1.07E-07	6.64E-07	0.
6 10.20 0.	0.	3.59E-16	0.	0.	0.	0.	0.	2.41E-11	5.09E-09	5.09E-07	1.07E-07	6.64E-07	0.
7 10.10 0.	0.	3.36E-16	0.	0.	0.	0.	0.	2.42E-11	5.17E-09	5.08E-07	1.07E-07	6.64E-07	0.
8 10.00 0.	0.	2.87E-16	0.	0.	0.	0.	0.	2.42E-11	5.34E-09	5.08E-07	1.07E-07	6.64E-07	0.
9 9.90 0.	0.	3.05E-16	0.	0.	0.	0.	0.	2.43E-11	5.50E-09	5.08E-07	1.07E-07	6.64E-07	0.
10 9.80 0.	0.	2.80E-16	0.	0.	0.	0.	0.	2.43E-11	5.74E-09	5.08E-07	1.07E-07	6.64E-07	0.
11 9.70 0.	0.	2.91E-16	0.	0.	0.	0.	0.	2.43E-11	5.99E-09	5.08E-07	1.07E-07	6.64E-07	0.
12 9.60 0.	0.	2.71E-16	0.	0.	0.	0.	0.	2.44E-11	7.20E-09	5.08E-07	1.07E-07	6.64E-07	0.
13 9.50 0.	0.	2.33E-16	0.	0.	0.	0.	0.	2.44E-11	7.63E-09	5.08E-07	1.07E-07	6.64E-07	0.
14 9.40 0.	0.	2.29E-16	0.	0.	0.	0.	0.	2.45E-11	7.67E-09	5.08E-07	1.07E-07	6.64E-07	0.
15 9.30 0.	0.	2.26E-16	0.	0.	0.	0.	0.	2.46E-11	7.92E-09	5.08E-07	1.07E-07	6.64E-07	0.
16 9.20 0.	0.	1.92E-16	0.	0.	0.	0.	0.	2.47E-11	8.10E-09	5.08E-07	1.07E-07	6.64E-07	0.
17 9.10 0.	0.	1.88E-16	0.	0.	0.	0.	0.	2.48E-11	8.46E-09	5.08E-07	1.07E-07	6.64E-07	0.
18 9.00 0.	0.	1.80E-16	0.	0.	0.	0.	0.	2.48E-11	8.75E-09	5.08E-07	1.07E-07	6.64E-07	0.
19 8.90 0.	0.	1.67E-16	0.	0.	0.	0.	0.	2.50E-11	9.05E-09	5.08E-07	1.07E-07	6.64E-07	0.
20 8.80 0.	0.	1.65E-16	0.	0.	0.	0.	0.	2.50E-11	9.34E-09	5.08E-07	1.07E-07	6.64E-07	0.
21 8.70 0.	0.	1.46E-16	0.	0.	0.	0.	0.	2.51E-11	9.69E-09	5.08E-07	1.07E-07	6.64E-07	0.
22 8.60 0.	0.	1.46E-16	0.	0.	0.	0.	0.	2.52E-11	1.00E-08	5.08E-07	1.07E-07	6.64E-07	0.
23 8.50 0.	0.	1.31E-16	0.	0.	0.	0.	0.	2.53E-11	1.04E-08	5.08E-07	1.07E-07	6.64E-07	0.
24 8.40 0.	0.	1.31E-16	0.	0.	0.	0.	0.	2.54E-11	1.08E-08	5.08E-07	1.07E-07	6.64E-07	0.
25 8.30 0.	0.	1.12E-16	0.	0.	0.	0.	0.	2.56E-11	1.12E-08	5.08E-07	1.07E-07	6.64E-07	0.
26 8.20 0.	0.	1.14E-16	0.	0.	0.	0.	0.	2.57E-11	1.16E-08	5.08E-07	1.07E-07	6.64E-07	0.
27 8.10 0.	0.	9.98E-17	0.	0.	0.	0.	0.	2.58E-11	1.20E-08	5.08E-07	1.07E-07	6.64E-07	0.
28 8.00 0.	0.	9.98E-17	0.	0.	0.	0.	0.	2.60E-11	1.25E-08	5.08E-07	1.07E-07	6.64E-07	0.
29 7.90 0.	0.	9.01E-17	0.	0.	0.	0.	0.	2.61E-11	1.30E-08	5.08E-07	1.07E-07	6.64E-07	0.
30 7.80 0.	0.	9.01E-17	0.	0.	0.	0.	0.	2.62E-11	1.35E-08	5.08E-07	1.07E-07	6.64E-07	0.
31 7.70 0.	0.	7.96E-17	0.	0.	0.	0.	0.	2.64E-11	1.47E-08	5.08E-07	1.07E-07	6.64E-07	0.
32 7.60 0.	0.	7.40E-17	0.	0.	0.	0.	0.	2.65E-11	1.46E-08	5.08E-07	1.07E-07	6.64E-07	0.
33 7.50 0.	0.	7.08E-17	0.	0.	0.	0.	0.	2.66E-11	1.52E-08	5.08E-07	1.07E-07	6.64E-07	0.
34 7.40 0.	0.	6.39E-17	0.	0.	0.	0.	0.	2.68E-11	1.58E-08	5.08E-07	1.07E-07	6.64E-07	0.
35 7.30 0.	0.	6.09E-17	0.	0.	0.	0.	0.	2.69E-11	1.65E-08	5.08E-07	1.07E-07	6.64E-07	0.
36 7.20 0.	0.	5.53E-17	0.	0.	0.	0.	0.	2.71E-11	1.74E-08	5.08E-07	1.07E-07	6.64E-07	0.
37 7.10 0.	0.	5.34E-17	0.	0.	0.	0.	0.	2.73E-11	1.79E-08	5.08E-07	1.07E-07	6.64E-07	0.
38 7.00 0.	0.	4.93E-17	0.	0.	0.	0.	0.	2.75E-11	1.87E-08	5.08E-07	1.07E-07	6.64E-07	0.
39 6.90 0.	0.	4.77E-17	0.	0.	0.	0.	0.	2.78E-11	1.97E-08	5.08E-07	1.07E-07	6.64E-07	0.
40 6.80 0.	0.	4.47E-17	0.	0.	0.	0.	0.	2.82E-11	2.04E-08	5.08E-07	1.07E-07	6.64E-07	0.
41 6.70 0.	0.	3.90E-17	0.	0.	0.	0.	0.	2.82E-11	2.04E-08	5.08E-07	1.07E-07	6.64E-07	0.
42 6.60 0.	0.	3.90E-17	0.	0.	0.	0.	0.	2.82E-11	2.04E-08	5.08E-07	1.07E-07	6.64E-07	0.
43 6.50 0.	0.	3.90E-17	0.	0.	0.	0.	0.	2.82E-11	2.04E-08	5.08E-07	1.07E-07	6.64E-07	0.
44 6.40 0.	0.	3.90E-17	0.	0.	0.	0.	0.	2.82E-11	2.04E-08	5.08E-07	1.07E-07	6.64E-07	0.
45 6.30 0.	0.	3.90E-17	0.	0.	0.	0.	0.	2.82E-11	2.04E-08	5.08E-07	1.07E-07	6.64E-07	0.
46 6.20 0.	0.	3.90E-17	0.	0.	0.	0.	0.	2.82E-11	2.04E-08	5.08E-07	1.07E-07	6.64E-07	0.
47 6.10 0.	0.	3.90E-17	0.	0.	0.	0.	0.	2.82E-11	2.04E-08	5.08E-07	1.07E-07	6.64E-07	0.
48 6.00 0.	0.	3.90E-17	0.	0.	0.	0.	0.	2.82E-11	2.04E-08	5.08E-07	1.07E-07	6.64E-07	0.
49 5.90 0.	0.	3.90E-17	0.	0.	0.	0.	0.	2.82E-11	2.04E-08	5.08E-07	1.07E-07	6.64E-07	0.
50 5.80 0.	0.	3.90E-17	0.	0.	0.	0.	0.	2.82E-11	2.04E-08	5.08E-07	1.07E-07	6.64E-07	0.
51 5.70 0.	0.	3.90E-17	0.	0.	0.	0.	0.	2.82E-11	2.04E-08	5.08E-07	1.07E-07	6.64E-07	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 19000.		DENSITY (GM/CC) 1.293E-08 (1.0E-05 NORMAL)		3- PHOTO-MET (LINES)		P.E.		0 TOTAL AIR	
POSITION 02 3-0	02 3-0	02 3-0	02 3-0	02 3-0	02 3-0	02 3-0	02 3-0	02 3-0	02 3-0
ENERGY BANDS	CONV.	CONV.	CONV.	CONV.	CONV.	CONV.	CONV.	CONV.	CONV.
E.V.	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9
1 10.70 0.	4.12E-26	0.	0.	0.	0.	2.09E-14	2.37E-11	0.19E-09	1.31E-09
2 10.60 0.	3.77E-20	0.	0.	0.	0.	2.09E-14	7.04E-11	0.24E-09	1.31E-09
3 10.50 0.	3.07E-20	0.	0.	0.	0.	2.09E-14	7.04E-11	0.24E-09	1.31E-09
4 10.40 0.	3.04E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
5 10.30 0.	3.10E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
6 10.20 0.	3.11E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
7 10.10 0.	3.13E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
8 10.00 0.	2.77E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
9 9.90 0.	2.84E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
10 9.80 0.	2.84E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
11 9.70 0.	2.84E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
12 9.60 0.	2.84E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
13 9.50 0.	2.84E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
14 9.40 0.	2.84E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
15 9.30 0.	2.84E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
16 9.20 0.	2.84E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
17 9.10 0.	1.83E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
18 9.00 0.	1.67E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
19 8.90 0.	1.54E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
20 8.80 0.	1.54E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
21 8.70 0.	1.34E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
22 8.60 0.	1.30E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
23 8.50 0.	1.22E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
24 8.40 0.	1.04E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
25 8.30 0.	1.04E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
26 8.20 0.	0.72E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
27 8.10 0.	0.53E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
28 8.00 0.	0.40E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
29 7.90 0.	7.42E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
30 7.80 0.	7.00E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
31 7.70 0.	6.00E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
32 7.60 0.	5.47E-24	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
33 7.50 0.	1.02E-24	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
34 7.40 0.	5.90E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
35 7.30 0.	5.60E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
36 7.20 0.	5.15E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
37 7.10 0.	4.90E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
38 7.00 0.	4.59E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
39 6.90 0.	4.24E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
40 6.80 0.	4.10E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
41 6.70 0.	3.72E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
42 6.60 0.	2.12E-24	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
43 6.50 0.	2.62E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
44 6.40 0.	2.03E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
45 6.30 0.	1.15E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
46 6.20 0.	0.67E-21	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
47 6.10 0.	0.63E-26	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
48 6.00 0.	3.62E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
49 5.90 0.	1.92E-27	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
50 5.80 0.	1.10E-27	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09
51 5.70 0.	4.30E-20	0.	0.	0.	0.	2.09E-14	0.34E-11	0.30E-09	1.30E-09

ABSORPTION COEFFICIENT, OF MEATED AIR (INVERSE CM.)

PHOTON ENERGY E.V.	Q2 S-4 COUNT	M2 B-W NO. 1	NO BETA	NO GAMMA	Q- PHOTO-DETECT	FREE-FRAME P.E.	Q P.E.	TOTAL AIR
1 10.70 0.	0.	1.07E-24	0.	0.	4.40E-17	1.70E-12	3.01E-10	2.02E-11
2 10.80 0.	0.	1.71E-24	0.	0.	4.47E-17	1.75E-12	3.03E-10	2.02E-11
3 10.90 0.	0.	1.73E-24	0.	0.	4.48E-17	1.80E-12	3.05E-10	2.02E-11
4 10.95 0.	0.	1.65E-24	0.	0.	4.40E-17	1.85E-12	3.07E-10	2.01E-11
5 10.98 0.	0.	1.45E-24	0.	0.	4.49E-17	1.91E-12	3.10E-10	2.00E-11
6 10.98 0.	0.	1.50E-24	0.	0.	4.49E-17	1.97E-12	3.14E-10	2.01E-11
7 10.10 0.	0.	1.42E-24	0.	0.	4.50E-17	2.03E-12	3.16E-10	2.02E-11
8 10.80 0.	0.	1.26E-24	0.	0.	4.50E-17	2.09E-12	3.22E-10	2.03E-11
9 9.90 0.	0.	1.29E-24	0.	0.	4.51E-17	2.15E-12	3.27E-10	2.04E-11
10 9.80 0.	0.	1.22E-24	0.	0.	4.52E-17	2.21E-12	3.31E-10	2.05E-11
11 9.70 0.	0.	1.06E-24	0.	0.	4.53E-17	2.27E-12	3.35E-10	2.06E-11
12 9.60 0.	0.	1.15E-24	0.	0.	4.54E-17	2.33E-12	3.39E-10	2.07E-11
13 9.50 0.	0.	9.80E-25	0.	0.	4.55E-17	2.44E-12	3.43E-10	2.08E-11
14 9.40 0.	0.	9.40E-25	0.	0.	4.56E-17	2.51E-12	3.46E-10	2.09E-11
15 9.30 0.	0.	9.65E-25	0.	0.	4.50E-17	2.60E-12	3.48E-10	2.10E-11
16 9.20 0.	0.	9.08E-25	0.	0.	4.60E-17	2.65E-12	3.44E-10	2.11E-11
17 9.10 0.	0.	8.31E-25	0.	0.	4.61E-17	2.77E-12	3.48E-10	2.13E-11
18 9.00 0.	0.	7.60E-25	0.	0.	4.63E-17	2.87E-12	3.52E-10	2.15E-11
19 8.90 0.	0.	7.07E-25	0.	0.	4.65E-17	2.96E-12	3.56E-10	2.16E-11
20 8.80 0.	0.	6.97E-25	0.	0.	4.66E-17	3.07E-12	3.60E-10	2.18E-11
21 8.70 0.	0.	6.10E-25	0.	0.	4.68E-17	3.17E-12	3.64E-10	2.15E-11
22 8.60 0.	0.	6.30E-25	0.	0.	4.70E-17	3.27E-12	3.68E-10	2.17E-11
23 8.50 0.	0.	5.50E-25	0.	0.	4.71E-17	3.41E-12	3.72E-10	2.19E-11
24 8.40 0.	0.	5.53E-25	0.	0.	4.74E-17	3.53E-12	3.80E-10	2.21E-11
25 8.30 0.	0.	4.74E-25	0.	0.	4.76E-17	3.66E-12	3.95E-10	2.24E-11
26 8.20 0.	0.	4.01E-25	0.	0.	4.79E-17	3.80E-12	4.03E-10	2.29E-11
27 8.10 0.	0.	4.19E-25	0.	0.	4.81E-17	3.94E-12	4.11E-10	2.33E-11
28 8.00 0.	0.	4.23E-25	0.	0.	4.84E-17	4.06E-12	4.19E-10	2.35E-11
29 7.90 0.	0.	3.66E-25	0.	0.	4.86E-17	4.25E-12	4.27E-10	2.43E-11
30 7.80 0.	0.	3.81E-25	0.	0.	4.89E-17	4.41E-12	4.36E-10	2.48E-11
31 7.70 0.	0.	3.37E-25	0.	0.	4.91E-17	4.59E-12	4.45E-10	2.52E-11
32 7.60 0.	0.	3.21E-25	0.	0.	4.93E-17	4.77E-12	4.55E-10	2.57E-11
33 7.50 0.	0.	3.08E-25	0.	0.	4.96E-17	4.97E-12	4.64E-10	2.62E-11
34 7.40 0.	0.	2.71E-25	0.	1.45E-20	4.99E-17	5.17E-12	4.76E-10	2.68E-11
35 7.30 0.	0.	2.50E-25	0.	1.24E-20	5.01E-17	5.39E-12	4.90E-10	2.74E-11
36 7.20 0.	0.	2.34E-25	0.	1.36E-20	5.04E-17	5.62E-12	5.05E-10	2.82E-11
37 7.10 0.	0.	2.26E-25	0.	1.47E-20	5.08E-17	5.86E-12	5.20E-10	2.91E-11
38 7.00 3.87E-20	0.	2.05E-25	0.	0.20E-20	5.12E-17	6.12E-12	5.34E-10	3.00E-11
39 6.90 7.5E-20	0.	1.92E-25	0.	0.	5.17E-17	6.39E-12	5.48E-10	3.09E-11
40 6.80 6.56E-20	0.	1.86E-25	0.	0.	5.21E-17	6.67E-12	5.63E-10	3.18E-11
41 6.70 4.08E-20	0.	1.64E-25	0.	0.	5.25E-17	6.96E-12	5.80E-10	3.27E-11
42 6.60 2.93E-20	0.	1.40E-25	0.	0.	5.29E-17	7.30E-12	6.02E-10	3.36E-11
43 6.50 1.78E-20	0.	1.10E-25	0.	0.	5.33E-17	7.64E-12	6.27E-10	3.45E-11
44 6.40 9.70E-20	0.	0.30E-24	0.	0.	5.37E-17	8.01E-12	6.52E-10	3.55E-11
45 6.30 5.71E-20	0.	4.6E-24	0.	0.	5.41E-17	8.40E-12	6.76E-10	3.64E-11
46 6.20 2.59E-20	0.	2.93E-24	0.	0.	5.46E-17	8.81E-12	7.02E-10	3.74E-11
47 6.10 1.19E-20	0.	1.52E-24	0.	0.	5.50E-17	9.26E-12	7.29E-10	3.84E-11
48 6.00 5.01E-20	0.	3.55E-26	0.	0.	5.54E-17	9.74E-12	7.58E-10	3.94E-11
49 5.90 1.23E-20	0.	2.95E-26	0.	0.	5.58E-17	1.02E-11	7.88E-10	4.04E-11
50 5.80 1.50E-20	0.	0.43E-20	0.	0.	5.62E-17	1.06E-11	8.19E-10	4.14E-11
51 5.70 1.16E-20	0.	0.	0.	0.	5.67E-17	1.14E-11	8.52E-10	4.24E-11

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 5-R	TEMPERATURE (DEGREES K)	DENSITY (GM/CC)	1.293E-09	1.0E-06 NORMAL	0	TOTAL AIR
ENERGY BANDS	1ST POS.	2ND POS.	1ST DEG.	2ND DEG.	PHOTO-BET (IOWS)	P.F.
52	5.60	5.25-34	0.	0.	4.77E-17	1.20E-11
53	5.50	0.	0.	0.	4.77E-17	1.20E-11
54	5.40	0.	0.	0.	4.77E-17	1.20E-11
55	5.30	0.	0.	0.	4.77E-17	1.20E-11
56	5.20	0.	0.	0.	4.77E-17	1.20E-11
57	5.10	0.	0.	0.	4.77E-17	1.20E-11
58	5.00	0.	0.	0.	4.77E-17	1.20E-11
59	4.90	0.	0.	0.	4.77E-17	1.20E-11
60	4.80	0.	0.	0.	4.77E-17	1.20E-11
61	4.70	0.	0.	0.	4.77E-17	1.20E-11
62	4.60	0.	0.	0.	4.77E-17	1.20E-11
63	4.50	0.	0.	0.	4.77E-17	1.20E-11
64	4.40	0.	0.	0.	4.77E-17	1.20E-11
65	4.30	0.	0.	0.	4.77E-17	1.20E-11
66	4.20	0.	0.	0.	4.77E-17	1.20E-11
67	4.10	0.	0.	0.	4.77E-17	1.20E-11
68	4.00	0.	0.	0.	4.77E-17	1.20E-11
69	3.90	0.	0.	0.	4.77E-17	1.20E-11
70	3.80	0.	0.	0.	4.77E-17	1.20E-11
71	3.70	0.	0.	0.	4.77E-17	1.20E-11
72	3.60	0.	0.	0.	4.77E-17	1.20E-11
73	3.50	0.	0.	0.	4.77E-17	1.20E-11
74	3.40	0.	0.	0.	4.77E-17	1.20E-11
75	3.30	0.	0.	0.	4.77E-17	1.20E-11
76	3.20	0.	0.	0.	4.77E-17	1.20E-11
77	3.10	0.	0.	0.	4.77E-17	1.20E-11
78	3.00	0.	0.	0.	4.77E-17	1.20E-11
79	2.90	0.	0.	0.	4.77E-17	1.20E-11
80	2.80	0.	0.	0.	4.77E-17	1.20E-11
81	2.70	0.	0.	0.	4.77E-17	1.20E-11
82	2.60	0.	0.	0.	4.77E-17	1.20E-11
83	2.50	0.	0.	0.	4.77E-17	1.20E-11
84	2.40	0.	0.	0.	4.77E-17	1.20E-11
85	2.30	0.	0.	0.	4.77E-17	1.20E-11
86	2.20	0.	0.	0.	4.77E-17	1.20E-11
87	2.10	0.	0.	0.	4.77E-17	1.20E-11
88	2.00	0.	0.	0.	4.77E-17	1.20E-11
89	1.90	0.	0.	0.	4.77E-17	1.20E-11
90	1.80	0.	0.	0.	4.77E-17	1.20E-11
91	1.70	0.	0.	0.	4.77E-17	1.20E-11
92	1.60	0.	0.	0.	4.77E-17	1.20E-11
93	1.50	0.	0.	0.	4.77E-17	1.20E-11
94	1.40	0.	0.	0.	4.77E-17	1.20E-11
95	1.30	0.	0.	0.	4.77E-17	1.20E-11
96	1.20	0.	0.	0.	4.77E-17	1.20E-11
97	1.10	0.	0.	0.	4.77E-17	1.20E-11
98	1.00	0.	0.	0.	4.77E-17	1.20E-11
99	0.90	0.	0.	0.	4.77E-17	1.20E-11
100	0.80	0.	0.	0.	4.77E-17	1.20E-11
101	0.70	0.	0.	0.	4.77E-17	1.20E-11
102	0.60	0.	0.	0.	4.77E-17	1.20E-11

TEMPERATURE (DEGREES K) 2000. DENSITY (GM/CC) 1.293E-02 (1.0E 10 NORMAL) ABSORPTION COEFFICIENTS (INVERSE CM) (3E3E CM)

ABSORPTION COEFFICIENT, OF HEATED AIR (INVERSE CM.)

[illegible]

TEMPERATURE (DEGREES K) 2000. DENSITY (GM/CC) 1.293E-03 (1.0E 00 NORMAL:

345

TEMPERATURE (DEGREES K) 2000. DENSITY (GM/CC) 1.793E-04 (1.0E-03 nominal)

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 2000. DENSITY (GM/CC) 1.293E-05 (10.0E-03 NORMAL)

PHOTON ID	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32	32-33	33-34	34-35	35-36	36-37	37-38	38-39	39-40	40-41	41-42	42-43	43-44	44-45	45-46	46-47	47-48	48-49	49-50	50-51	51-52	52-53	53-54	54-55	55-56	56-57	57-58	58-59	59-60	60-61	61-62	62-63	63-64	64-65	65-66	66-67	67-68	68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-100	100-101	101-102	102-103	103-104	104-105	105-106	106-107	107-108	108-109	109-110	110-111	111-112	112-113	113-114	114-115	115-116	116-117	117-118	118-119	119-120	120-121	121-122	122-123	123-124	124-125	125-126	126-127	127-128	128-129	129-130	130-131	131-132	132-133	133-134	134-135	135-136	136-137	137-138	138-139	139-140	140-141	141-142	142-143	143-144	144-145	145-146	146-147	147-148	148-149	149-150	150-151	151-152	152-153	153-154	154-155	155-156	156-157	157-158	158-159	159-160	160-161	161-162	162-163	163-164	164-165	165-166	166-167	167-168	168-169	169-170	170-171	171-172	172-173	173-174	174-175	175-176	176-177	177-178	178-179	179-180	180-181	181-182	182-183	183-184	184-185	185-186	186-187	187-188	188-189	189-190	190-191	191-192	192-193	193-194	194-195	195-196	196-197	197-198	198-199	199-200	200-201	201-202	202-203	203-204	204-205	205-206	206-207	207-208	208-209	209-210	210-211	211-212	212-213	213-214	214-215	215-216	216-217	217-218	218-219	219-220	220-221	221-222	222-223	223-224	224-225	225-226	226-227	227-228	228-229	229-230	230-231	231-232	232-233	233-234	234-235	235-236	236-237	237-238	238-239	239-240	240-241	241-242	242-243	243-244	244-245	245-246	246-247	247-248	248-249	249-250	250-251	251-252	252-253	253-254	254-255	255-256	256-257	257-258	258-259	259-260	260-261	261-262	262-263	263-264	264-265	265-266	266-267	267-268	268-269	269-270	270-271	271-272	272-273	273-274	274-275	275-276	276-277	277-278	278-279	279-280	280-281	281-282	282-283	283-284	284-285	285-286	286-287	287-288	288-289	289-290	290-291	291-292	292-293	293-294	294-295	295-296	296-297	297-298	298-299	299-300	300-301	301-302	302-303	303-304	304-305	305-306	306-307	307-308	308-309	309-310	310-311	311-312	312-313	313-314	314-315	315-316	316-317	317-318	318-319	319-320	320-321	321-322	322-323	323-324	324-325	325-326	326-327	327-328	328-329	329-330	330-331	331-332	3
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ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-W ENERGY BANDS		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.203E-04 (10.0E-04 NORMAL)		0- FREE-FREE		0- PHOTO-DET (IDMS)		0- P.E.		0- P.E.		TOTAL AIR		
157 POS.	2ND POS.	157 POS.	2ND POS.	157 POS.	2ND POS.	157 POS.	2ND POS.	157 POS.	2ND POS.	157 POS.	2ND POS.	157 POS.	2ND POS.	157 POS.	2ND POS.	157 POS.	2ND POS.	
157 POS.	2ND POS.	157 POS.	2ND POS.	157 POS.	2ND POS.	157 POS.	2ND POS.	157 POS.	2ND POS.	157 POS.	2ND POS.	157 POS.	2ND POS.	157 POS.	2ND POS.	157 POS.	2ND POS.	
52	3.60	0.42E-23	0.	0.	0.	9.51E-15	6.12E-14	0.	0.	1.24E-08	3.36E-04	1.37E-05	0.38E-04	2.54E-05	0.	0.	0.	
53	3.90	0.	0.	0.	0.	1.16E-14	5.47E-14	0.	0.	1.27E-08	3.53E-04	1.40E-05	0.47E-04	2.61E-05	0.	0.	0.	
54	3.60	0.	0.	0.	0.	1.08E-14	4.78E-14	0.	0.	1.20E-08	3.24E-04	1.34E-05	0.37E-04	2.46E-05	0.	0.	0.	
55	3.30	0.	0.	0.	0.	1.11E-14	5.08E-14	0.	0.	1.26E-08	3.49E-04	1.39E-05	0.40E-04	2.58E-05	0.	0.	0.	
56	3.20	0.	0.	0.	0.	1.20E-14	4.55E-14	0.	0.	1.29E-08	3.72E-04	1.43E-05	0.43E-04	2.63E-05	0.	0.	0.	
57	3.10	0.	0.	0.	0.	1.20E-14	5.01E-14	0.	0.	1.30E-08	3.75E-04	1.44E-05	0.44E-04	2.65E-05	0.	0.	0.	
58	3.00	1.20E-23	0.	0.	0.	1.10E-14	5.52E-14	0.	0.	1.31E-08	3.78E-04	1.45E-05	0.45E-04	2.66E-05	0.	0.	0.	
59	2.90	2.00E-23	0.	0.	0.	1.24E-14	6.08E-14	0.	0.	1.32E-08	3.81E-04	1.46E-05	0.46E-04	2.67E-05	0.	0.	0.	
60	2.80	3.50E-23	0.	0.	0.	1.33E-14	5.71E-14	0.	0.	1.34E-08	3.84E-04	1.47E-05	0.47E-04	2.68E-05	0.	0.	0.	
61	2.70	7.02E-23	0.	0.	0.	1.38E-14	5.23E-14	0.	0.	1.35E-08	3.87E-04	1.48E-05	0.48E-04	2.69E-05	0.	0.	0.	
62	2.60	1.06E-23	0.	0.	0.	1.38E-14	4.74E-14	0.	0.	1.36E-08	3.90E-04	1.49E-05	0.49E-04	2.70E-05	0.	0.	0.	
63	2.50	1.12E-23	0.	0.	0.	1.28E-14	3.50E-14	0.	0.	1.37E-08	3.93E-04	1.50E-05	0.50E-04	2.71E-05	0.	0.	0.	
64	2.40	1.11E-23	0.	0.	0.	1.28E-14	2.45E-14	0.	0.	1.38E-08	3.96E-04	1.51E-05	0.51E-04	2.72E-05	0.	0.	0.	
65	2.30	1.15E-23	0.	0.	0.	1.24E-14	1.54E-14	0.	0.	1.39E-08	3.99E-04	1.52E-05	0.52E-04	2.73E-05	0.	0.	0.	
66	2.20	1.16E-23	0.	0.	0.	1.31E-14	1.57E-14	0.	0.	1.40E-08	4.02E-04	1.53E-05	0.53E-04	2.74E-05	0.	0.	0.	
67	2.10	1.22E-23	0.	0.	0.	1.29E-14	3.31E-14	0.	0.	1.41E-08	4.05E-04	1.54E-05	0.54E-04	2.75E-05	0.	0.	0.	
68	2.00	9.52E-23	0.	0.	0.	1.26E-14	2.24E-14	0.	0.	1.42E-08	4.08E-04	1.55E-05	0.55E-04	2.76E-05	0.	0.	0.	
69	1.90	9.16E-23	0.	0.	0.	1.26E-14	2.44E-14	0.	0.	1.43E-08	4.11E-04	1.56E-05	0.56E-04	2.77E-05	0.	0.	0.	
70	1.80	8.09E-23	0.	0.	0.	1.27E-14	1.10E-14	0.	0.	1.44E-08	4.14E-04	1.57E-05	0.57E-04	2.78E-05	0.	0.	0.	
71	1.70	8.09E-23	0.	0.	0.	1.27E-14	1.10E-14	0.	0.	1.45E-08	4.17E-04	1.58E-05	0.58E-04	2.79E-05	0.	0.	0.	
72	1.60	7.95E-23	0.	0.	0.	1.24E-14	1.02E-14	0.	0.	1.46E-08	4.20E-04	1.59E-05	0.59E-04	2.80E-05	0.	0.	0.	
73	1.50	6.82E-23	0.	0.	0.	1.31E-14	1.57E-14	0.	0.	1.47E-08	4.23E-04	1.60E-05	0.60E-04	2.81E-05	0.	0.	0.	
74	1.40	6.42E-23	0.	0.	0.	1.27E-14	1.07E-14	0.	0.	1.48E-08	4.26E-04	1.61E-05	0.61E-04	2.82E-05	0.	0.	0.	
75	1.30	5.46E-23	0.	0.	0.	2.00E-14	0.64E-14	0.	0.	1.49E-08	4.29E-04	1.62E-05	0.62E-04	2.83E-05	0.	0.	0.	
76	1.20	4.95E-23	0.	0.	0.	1.80E-14	0.12E-14	0.	0.	1.50E-08	4.32E-04	1.63E-05	0.63E-04	2.84E-05	0.	0.	0.	
77	1.10	4.05E-23	0.	0.	0.	1.47E-14	0.71E-14	0.	0.	1.51E-08	4.35E-04	1.64E-05	0.64E-04	2.85E-05	0.	0.	0.	
78	1.00	3.00E-23	0.	0.	0.	9.15E-15	0.31E-14	0.	0.	1.52E-08	4.38E-04	1.65E-05	0.65E-04	2.86E-05	0.	0.	0.	
79	0.90	3.00E-23	0.	0.	0.	5.76E-14	0.44E-14	0.	0.	1.53E-08	4.41E-04	1.66E-05	0.66E-04	2.87E-05	0.	0.	0.	
80	0.80	3.55E-23	0.	0.	0.	2.78E-14	0.57E-14	0.	0.	1.54E-08	4.44E-04	1.67E-05	0.67E-04	2.88E-05	0.	0.	0.	
81	0.70	2.33E-23	0.	0.	0.	1.36E-14	0.96E-14	0.	0.	1.55E-08	4.47E-04	1.68E-05	0.68E-04	2.89E-05	0.	0.	0.	
82	0.60	1.12E-23	0.	0.	0.	6.28E-14	0.38E-14	0.	0.	1.56E-08	4.50E-04	1.69E-05	0.69E-04	2.90E-05	0.	0.	0.	
83	0.50	7.92E-23	0.	0.	0.	6.58E-14	0.13E-12	2.69E-17	0.	0.	1.57E-08	4.53E-04	1.70E-05	0.70E-04	2.91E-05	0.	0.	0.
84	0.40	0.	0.	0.	0.	7.01E-12	0.	0.	0.	0.	1.58E-08	4.56E-04	1.71E-05	0.71E-04	2.92E-05	0.	0.	0.
85	0.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.59E-08	4.59E-04	1.72E-05	0.72E-04	2.93E-05	0.	0.	0.
86	0.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.60E-08	4.62E-04	1.73E-05	0.73E-04	2.94E-05	0.	0.	0.
87	0.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.61E-08	4.65E-04	1.74E-05	0.74E-04	2.95E-05	0.	0.	0.
88	0.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.62E-08	4.68E-04	1.75E-05	0.75E-04	2.96E-05	0.	0.	0.
89	0.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.63E-08	4.71E-04	1.76E-05	0.76E-04	2.97E-05	0.	0.	0.
90	0.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.64E-08	4.74E-04	1.77E-05	0.77E-04	2.98E-05	0.	0.	0.
91	0.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.65E-08	4.77E-04	1.78E-05	0.78E-04	2.99E-05	0.	0.	0.
92	0.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.66E-08	4.80E-04	1.79E-05	0.79E-04	3.00E-05	0.	0.	0.
93	0.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.67E-08	4.83E-04	1.80E-05	0.80E-04	3.01E-05	0.	0.	0.
94	0.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.68E-08	4.86E-04	1.81E-05	0.81E-04	3.02E-05	0.	0.	0.
95	0.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.69E-08	4.89E-04	1.82E-05	0.82E-04	3.03E-05	0.	0.	0.
96	0.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.70E-08	4.92E-04	1.83E-05	0.83E-04	3.04E-05	0.	0.	0.
97	0.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.71E-08	4.95E-04	1.84E-05	0.84E-04	3.05E-05	0.	0.	0.
98	0.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.72E-08	4.98E-04	1.85E-05	0.85E-04	3.06E-05	0.	0.	0.
99	0.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.73E-08	5.01E-04	1.86E-05	0.86E-04	3.07E-05	0.	0.	0.
100	0.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.74E-08	5.04E-04	1.87E-05	0.87E-04	3.08E-05	0.	0.	0.
101	0.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.75E-08	5.07E-04	1.88E-05	0.88E-04	3.09E-05	0.	0.	0.
102	0.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.76E-08	5.10E-04	1.89E-05	0.89E-04	3.10E-05	0.	0.	0.

TEMPERATURE (DEGREES K) 2000. DENSITY (GM/CC) 1.2935-07 (10-DE-05 NORMAL)

PHOTON ID	5-R ENERGY E.V.	5-R CONT.	M2 B-H NO. 1	NO BETA	NO GAMMA	NO 2	0- PMOIO-DET (IDMS)	FREE-FREE	M	P.E.	0 P.E.	TOTAL WIP
1	18.74	0.	1.14E-16	0.	3.	0.	1.31E-11	5.92E-09	7.18E-07	9.24E-08	8.68E-07	
2	10.60	0.	1.04E-16	0.	0.	0.	1.31E-11	5.60E-09	7.19E-07	9.23E-08	8.17E-07	
3	10.50	0.	1.06E-16	0.	0.	0.	1.32E-11	5.45E-09	3.43E-07	9.19E-08	4.91E-07	
4	10.40	0.	1.01E-16	0.	0.	0.	1.32E-11	3.82E-09	3.45E-07	9.15E-08	4.42E-07	
5	10.30	0.	8.91E-17	0.	0.	0.	1.32E-11	6.19E-09	3.46E-07	9.12E-08	4.33E-07	
6	9.24E-17	0.	8.94E-17	0.	0.	0.	1.32E-11	4.30E-09	3.40E-07	9.08E-08	4.55E-07	
7	10.10	0.	7.77E-17	0.	0.	0.	1.32E-11	6.57E-09	3.50E-07	9.05E-08	4.97E-07	
8	10.00	0.	7.79E-17	0.	0.	0.	1.32E-11	6.77E-09	3.51E-07	9.02E-08	4.50E-07	
9	9.91E-17	0.	8.01E-17	0.	0.	0.	1.32E-11	4.60E-09	3.55E-07	8.98E-08	4.52E-07	
10	9.80	0.	7.99E-17	0.	0.	0.	1.33E-11	7.20E-09	3.57E-07	8.95E-08	4.54E-07	
11	9.70	0.	6.43E-17	0.	0.	0.	1.33E-11	7.43E-09	3.60E-07	8.92E-08	4.56E-07	
12	9.60	0.	7.08E-17	0.	0.	0.	1.34E-11	7.66E-09	3.62E-07	8.89E-08	4.59E-07	
13	9.50	0.	6.21E-17	0.	0.	0.	1.34E-11	7.91E-09	3.65E-07	8.85E-08	4.61E-07	
14	9.40	0.	5.93E-17	0.	0.	0.	1.34E-11	8.17E-09	3.67E-07	8.82E-08	4.64E-07	
15	9.30	0.	4.80E-17	0.	0.	0.	1.35E-11	8.43E-09	2.38E-07	8.78E-08	3.27E-07	
16	9.20	0.	5.13E-17	0.	0.	0.	1.35E-11	8.77E-09	2.32E-07	8.75E-08	3.29E-07	
17	9.10	0.	5.28E-17	0.	0.	0.	1.36E-11	9.01E-09	2.34E-07	8.72E-08	3.31E-07	
18	9.00	0.	4.89E-17	0.	0.	0.	1.36E-11	9.31E-09	2.36E-07	8.69E-08	3.32E-07	
19	8.90	0.	4.35E-17	0.	0.	0.	1.37E-11	9.63E-09	2.38E-07	8.65E-08	3.34E-07	
20	8.80	0.	4.75E-17	0.	0.	0.	1.37E-11	9.97E-09	2.40E-07	8.62E-08	3.36E-07	
21	8.70	0.	3.93E-17	0.	0.	0.	1.38E-11	1.03E-08	2.42E-07	8.57E-08	3.39E-07	
22	8.60	0.	4.07E-17	0.	0.	0.	1.38E-11	1.07E-08	2.44E-07	8.54E-08	3.39E-07	
23	8.50	0.	3.61E-17	0.	0.	0.	1.38E-11	1.11E-08	2.47E-07	8.50E-08	3.41E-07	
24	8.40	0.	3.48E-17	0.	0.	0.	1.39E-11	1.15E-08	2.49E-07	8.47E-08	3.42E-07	
25	8.30	0.	3.10E-17	0.	0.	0.	1.40E-11	1.19E-08	2.52E-07	8.42E-08	3.45E-07	
26	8.20	0.	2.79E-17	0.	0.	0.	1.41E-11	1.23E-08	2.54E-07	8.38E-08	3.51E-07	
27	8.10	0.	2.78E-17	0.	0.	0.	1.41E-11	1.28E-08	1.64E-07	8.34E-08	2.80E-07	
28	8.00	0.	2.78E-17	0.	0.	0.	1.42E-11	1.33E-08	1.68E-07	8.30E-08	2.85E-07	
29	7.90	0.	2.42E-17	0.	0.	0.	1.43E-11	1.38E-08	1.92E-07	8.26E-08	2.98E-07	
30	7.80	0.	2.52E-17	0.		0.	1.44E-11	1.44E-08	1.96E-07	8.43E-08	2.95E-07	
31	7.70	0.	2.94E-17	0.	0.	0.	1.44E-11	1.49E-08	2.01E-07	8.45E-08	3.01E-07	
32	7.60	0.	2.14E-17	0.	1.47E-21	0.	1.45E-11	1.55E-08	2.06E-07	8.47E-08	3.07E-07	
33	7.50	0.	2.01E-17	0.	4.77E-21	0.	1.46E-11	1.62E-08	2.11E-07	8.49E-08	3.13E-07	
34	7.40	0.	1.82E-17	0.	4.22E-20	0.	1.47E-11	1.69E-08	2.17E-07	8.52E-08	3.19E-07	
35	7.30	0.	1.74E-17	0.	1.42E-20	0.	1.47E-11	1.75E-08	2.23E-07	8.54E-08	3.26E-07	
36	7.20	0.	1.58E-17	0.	1.49E-19	0.	1.48E-11	1.83E-08	2.30E-07	8.58E-08	3.34E-07	
37	7.10	0.	1.43E-17	0.	1.41E-18	0.	1.49E-11	1.91E-08	2.37E-07	8.61E-08	3.42E-07	
38	7.00	0.91E-21	1.26E-17	0.	3.90E-19	0.	1.51E-11	1.99E-08	2.38E-07	8.64E-08	3.37E-07	
39	6.90	1.16E-21	1.31E-17	0.	3.94E-19	0.	1.52E-11	2.09E-08	2.37E-07	8.67E-08	3.45E-07	
40	6.80	1.18E-20	1.28E-17	0.	6.45E-18	0.	1.53E-11	2.17E-08	2.44E-07	8.71E-08	3.53E-07	
41	6.70	2.62E-21	1.11E-17	0.	6.45E-18	0.	1.54E-11	2.27E-08	2.52E-07	8.75E-08	3.62E-07	
42	6.60	5.29E-21	1.02E-17	0.	5.50E-18	0.	1.55E-11	2.38E-08	2.59E-07	8.80E-08	3.71E-07	
43	6.50	3.07E-21	8.44E-18	0.	7.00E-18	0.	1.57E-11	2.49E-08	2.67E-07	8.84E-08	3.83E-07	
44	6.40	1.04E-21	5.79E-18	2.51E-20	7.29E-18	0.	1.59E-11	2.61E-08	2.74E-07	8.89E-08	3.89E-07	
45	6.30	1.04E-21	5.46E-18	1.29E-19	5.41E-18	0.	1.59E-11	2.74E-08	2.82E-07	8.96E-08	3.99E-07	
46	6.20	4.72E-22	4.97E-18	1.72E-19	7.29E-18	0.	1.60E-11	2.88E-08	2.90E-07	9.05E-08	4.09E-07	
47	6.10	2.19E-22	9.07E-19	4.95E-19	8.05E-18	0.	1.62E-11	3.02E-08	2.99E-07	9.14E-08	4.20E-07	
48	6.00	9.19E-23	2.58E-19	4.80E-19	4.45E-18	0.	1.63E-11	3.18E-08	3.07E-07	9.24E-08	4.31E-07	
49	5.90	2.27E-23	1.92E-20	7.00E-19	4.38E-18	0.	1.63E-11	3.34E-08	3.15E-07	9.33E-08	4.42E-07	
50	5.80	2.98E-24	4.59E-20	9.97E-19	4.59E-18	0.	1.60E-11	3.52E-08	3.24E-07	9.43E-08	4.54E-07	
51	5.70	2.14E-25	0.	1.10E-18	5.05E-18	0.	1.53E-11	3.71E-08	1.70E-07	8.94E-08	2.97E-07	

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON Q2 S-R		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-07 (10.0E-05 NORMAL)		0- FREE-DEET (IONS)		P.E.		TOTAL AIR	
ENERGY BANDS	1ST POS.	2ND POS.	1ST MEAS.	BETA	GAMMA	VIB-ROT	NO	NO	PHOTO-DEET	W	P.E.	0	P.E.
52 5.60 9.60E-27	0	0	0	1.02E-10	6.90E-10	0	0	1.40E-11	3.91E-08	1.76E-07	9.02E-08	3.05E-07	
53 5.50 0	0	0	0	1.25E-10	6.10E-10	0	0	1.41E-11	4.13E-08	1.82E-07	9.12E-08	3.15E-07	
54 5.40 0	0	0	0	1.16E-10	5.05E-10	0	0	1.42E-11	4.37E-08	1.89E-07	9.24E-08	3.25E-07	
55 5.30 0	0	0	0	1.10E-10	4.40E-10	0	0	1.42E-11	4.58E-08	1.97E-07	9.38E-08	3.37E-07	
56 5.20 0	0	0	0	1.25E-10	4.80E-10	0	0	1.43E-11	4.80E-08	2.04E-07	9.55E-08	3.48E-07	
57 5.10 0	0	0	0	1.20E-10	6.20E-10	0	0	1.45E-11	5.20E-08	2.12E-07	9.71E-08	3.61E-07	
58 5.00 1.15E-19	0	0	0	1.19E-10	5.90E-10	0	0	1.46E-11	5.52E-08	2.20E-07	9.88E-08	3.74E-07	
59 4.90 3.11E-19	0	0	0	1.13E-10	6.50E-10	0	0	1.47E-11	5.87E-08	2.29E-07	9.98E-08	3.87E-07	
60 4.80 6.28E-19	0	0	0	1.13E-10	6.10E-10	0	0	1.48E-11	6.25E-08	2.38E-07	1.02E-07	4.02E-07	
61 4.70 8.56E-19	0	0	0	1.44E-10	5.05E-10	0	0	1.49E-11	6.66E-08	2.48E-07	1.05E-07	4.20E-07	
62 4.60 1.19E-18	0	0	0	1.19E-10	5.10E-10	0	0	1.51E-11	7.11E-08	2.63E-07	1.08E-07	4.42E-07	
63 4.50 1.26E-18	0	0	0	1.38E-10	3.95E-10	0	0	1.52E-11	7.60E-08	2.79E-07	1.11E-07	4.65E-07	
64 4.40 1.36E-18	0	0	0	1.39E-10	2.43E-10	0	0	1.53E-11	8.14E-08	2.95E-07	1.14E-07	4.90E-07	
65 4.30 1.30E-18	0	0	0	1.34E-10	1.67E-10	0	0	1.54E-11	8.72E-08	3.11E-07	1.17E-07	5.12E-07	
66 4.20 1.22E-18	0	0	0	1.31E-10	1.19E-10	0	0	1.56E-11	9.37E-08	3.30E-07	1.21E-07	5.24E-07	
67 4.10 1.15E-18	0	0	0	1.35E-10	3.24E-10	0	0	1.56E-11	1.01E-07	3.48E-07	1.25E-07	5.06E-07	
68 4.00 1.07E-18	0	0	0	1.35E-10	2.43E-10	0	0	1.57E-11	1.09E-07	3.48E-07	1.25E-07	5.16E-07	
69 3.90 9.13E-19	0	0	0	1.20E-10	9.08E-10	0	0	1.56E-11	1.17E-07	3.48E-07	1.25E-07	5.04E-07	
70 3.80 1.01E-18	0	0	0	1.16E-10	0	0	0	1.56E-11	1.27E-07	3.48E-07	1.25E-07	5.15E-07	
71 3.70 9.08E-19	0	0	0	1.10E-10	0	0	0	1.53E-11	1.37E-07	3.52E-07	1.25E-07	5.59E-07	
72 3.60 8.25E-19	0	0	0	1.02E-10	0	0	0	1.43E-11	1.49E-07	3.78E-07	1.25E-07	6.01E-07	
73 3.50 7.78E-19	0	0	0	1.02E-10	0	0	0	1.51E-11	1.63E-07	4.04E-07	1.25E-07	6.50E-07	
74 3.40 7.20E-19	0	0	0	1.15E-10	0	0	0	1.57E-11	1.78E-07	4.30E-07	1.25E-07	7.08E-07	
75 3.30 5.80E-19	0	0	0	9.20E-10	0	0	0	1.58E-11	1.95E-07	4.71E-07	1.25E-07	7.65E-07	
76 3.20 5.10E-19	0	0	0	9.08E-19	0	0	0	1.60E-11	2.14E-07	5.15E-07	1.25E-07	8.66E-07	
77 3.10 4.47E-19	0	0	0	9.37E-19	0	0	0	1.61E-11	2.36E-07	5.73E-07	1.25E-07	9.75E-07	
78 3.00 4.73E-19	0	0	0	8.94E-19	0	0	0	1.63E-11	2.60E-07	6.37E-07	1.25E-07	1.09E-07	
79 2.90 3.80E-19	0	0	0	6.93E-19	0	0	0	1.64E-11	2.85E-07	7.07E-07	1.25E-07	1.25E-07	
80 2.80 3.99E-19	0	0	0	4.91E-19	0	0	0	1.66E-11	3.21E-07	8.03E-07	1.25E-07	1.42E-07	
81 2.70 2.91E-19	0	0	0	2.74E-19	0	0	0	1.66E-11	3.59E-07	9.25E-07	1.25E-07	1.61E-07	
82 2.60 1.24E-19	0	0	0	1.23E-19	0	0	0	1.66E-11	4.09E-07	1.07E-07	1.25E-07	1.82E-07	
83 2.50 8.09E-21	0	0	0	2.06E-20	0	0	0	1.66E-11	4.69E-07	1.25E-07	1.25E-07	2.05E-07	
84 2.40 0	0	0	0	3.19E-21	0	0	0	1.66E-11	5.39E-07	1.43E-07	1.25E-07	2.31E-07	
85 2.30 0	0	0	0	0	0	0	0	1.66E-11	6.19E-07	1.61E-07	1.25E-07	2.59E-07	
86 2.20 0	0	0	0	0	0	0	0	1.66E-11	7.09E-07	1.81E-07	1.25E-07	2.89E-07	
87 2.10 0	0	0	0	0	0	0	0	1.66E-11	8.09E-07	2.01E-07	1.25E-07	3.21E-07	
88 2.00 0	0	0	0	0	0	0	0	1.66E-11	9.19E-07	2.21E-07	1.25E-07	3.55E-07	
89 1.90 0	0	0	0	0	0	0	0	1.66E-11	1.03E-06	2.41E-07	1.25E-07	3.91E-07	
90 1.80 0	0	0	0	0	0	0	0	1.66E-11	1.17E-06	2.61E-07	1.25E-07	4.29E-07	
91 1.70 0	0	0	0	0	0	0	0	1.66E-11	1.31E-06	2.81E-07	1.25E-07	4.69E-07	
92 1.60 0	0	0	0	0	0	0	0	1.66E-11	1.45E-06	3.01E-07	1.25E-07	5.11E-07	
93 1.50 0	0	0	0	0	0	0	0	1.66E-11	1.60E-06	3.21E-07	1.25E-07	5.55E-07	
94 1.40 0	0	0	0	0	0	0	0	1.66E-11	1.75E-06	3.41E-07	1.25E-07	6.01E-07	
95 1.30 0	0	0	0	0	0	0	0	1.66E-11	1.90E-06	3.61E-07	1.25E-07	6.49E-07	
96 1.20 0	0	0	0	0	0	0	0	1.66E-11	2.05E-06	3.81E-07	1.25E-07	6.99E-07	
97 1.10 0	0	0	0	0	0	0	0	1.66E-11	2.20E-06	4.01E-07	1.25E-07	7.51E-07	
98 1.00 0	0	0	0	0	0	0	0	1.66E-11	2.35E-06	4.21E-07	1.25E-07	8.05E-07	
99 0.90 0	0	0	0	0	0	0	0	1.66E-11	2.50E-06	4.41E-07	1.25E-07	8.61E-07	
100 0.80 0	0	0	0	0	0	0	0	1.66E-11	2.65E-06	4.61E-07	1.25E-07	9.19E-07	
101 0.70 0	0	0	0	0	0	0	0	1.66E-11	2.80E-06	4.81E-07	1.25E-07	9.79E-07	
102 0.60 0	0	0	0	0	0	0	0	1.66E-11	2.95E-06	5.01E-07	1.25E-07	1.04E-06	

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PMTON OF S-R ENERGY BANDS E.V.	OR S-R CONT.	RZ B-H NO. 1	NO DATA	NO BANDA	NO 2	O- PHOTO-DGT (10NS)	PAGE-FREE		P.E.		TOTAL AID
							M	P.E.	M	P.E.	
1 10.74 0.	0.	9.00E-21	0.	0.	0.	1.00E-14	1.00E-10	1.09E-08	1.30E-09	1.20E-08	
2 10.60 0.	0.	8.33E-21	0.	0.	0.	1.00E-14	1.00E-10	1.10E-08	1.37E-09	1.25E-08	
3 10.50 0.	0.	0.40E-21	0.	0.	0.	1.00E-14	1.00E-10	1.11E-08	1.37E-09	1.20E-08	
4 10.40 0.	0.	8.00E-21	0.	0.	0.	1.00E-14	1.00E-10	1.12E-08	1.37E-09	1.20E-08	
5 10.30 0.	0.	7.12E-21	0.	0.	0.	1.00E-14	1.15E-10	1.12E-08	1.30E-09	1.27E-08	
6 10.20 0.	0.	7.00E-21	0.	0.	0.	1.01E-14	1.10E-10	1.14E-08	1.30E-09	1.20E-08	
7 10.10 0.	0.	7.81E-21	0.	0.	0.	1.01E-14	1.20E-10	1.15E-08	1.30E-09	1.30E-08	
8 10.00 0.	0.	0.22E-21	0.	0.	0.	1.01E-14	1.27E-10	1.17E-08	1.30E-09	1.32E-08	
9 9.90 0.	0.	0.40E-21	0.	0.	0.	1.02E-14	1.27E-10	1.18E-08	1.30E-09	1.33E-08	
10 9.80 0.	0.	0.07E-21	0.	0.	0.	1.02E-14	1.31E-10	1.20E-08	1.30E-09	1.35E-08	
11 9.70 0.	0.	5.30E-21	0.	0.	0.	1.02E-14	1.35E-10	1.21E-08	1.30E-09	1.30E-08	
12 9.60 0.	0.	5.74E-21	0.	0.	0.	1.03E-14	1.39E-10	1.23E-08	1.30E-09	1.30E-08	
13 9.50 0.	0.	4.97E-21	0.	0.	0.	1.03E-14	1.40E-10	1.24E-08	1.30E-09	1.39E-08	
14 9.40 0.	0.	4.74E-21	0.	0.	0.	1.04E-14	1.40E-10	1.25E-08	1.30E-09	1.41E-08	
15 9.30 0.	0.	4.07E-21	0.	0.	0.	1.04E-14	1.50E-10	1.14E-08	1.30E-09	1.30E-08	
16 9.20 0.	0.	4.10E-21	0.	0.	0.	1.05E-14	1.50E-10	1.14E-08	1.30E-09	1.30E-08	
17 9.10 0.	0.	4.22E-21	0.	0.	0.	1.05E-14	1.60E-10	1.17E-08	1.30E-09	1.32E-08	
18 9.00 0.	0.	3.07E-21	0.	0.	0.	1.05E-14	1.60E-10	1.19E-08	1.30E-09	1.30E-08	
19 8.90 0.	0.	3.02E-21	0.	0.	0.	1.07E-14	1.75E-10	1.20E-08	1.30E-09	1.30E-08	
20 8.80 0.	0.	3.57E-21	0.	0.	0.	1.08E-14	1.81E-10	1.21E-08	1.17E-09	1.35E-08	
21 8.70 0.	0.	3.14E-21	0.	0.	0.	1.08E-14	1.87E-10	1.23E-08	1.17E-09	1.30E-08	
22 8.60 0.	0.	3.29E-21	0.	0.	0.	1.09E-14	1.90E-10	1.24E-08	1.10E-09	1.30E-08	
23 8.50 0.	0.	2.80E-21	0.	0.	0.	1.09E-14	2.01E-10	1.26E-08	1.10E-09	1.40E-08	
24 8.40 0.	0.	2.80E-21	0.	0.	0.	1.09E-14	2.08E-10	1.27E-08	1.10E-09	1.41E-08	
25 8.30 0.	0.	2.57E-21	0.	0.	0.	1.12E-14	2.10E-10	1.28E-08	1.10E-09	8.63E-09	
26 8.20 0.	0.	2.51E-21	0.	0.	0.	1.13E-14	2.24E-10	1.30E-08	1.10E-09	8.92E-09	
27 8.10 0.	0.	2.22E-21	0.	0.	0.	1.08E-14	2.33E-10	1.27E-08	1.21E-09	9.27E-09	
28 8.00 0.	0.	1.93E-21	0.	0.	0.	1.09E-14	2.42E-10	1.28E-08	1.22E-09	9.52E-09	
29 7.90 0.	0.	2.02E-21	0.	0.	0.	1.06E-14	2.51E-10	1.29E-08	1.24E-09	9.82E-09	
30 7.80 0.	0.	2.02E-21	0.	0.	0.	1.06E-14	2.61E-10	1.31E-08	1.25E-09	1.01E-08	
31 7.70 0.	0.	1.70E-21	0.	0.	0.	1.07E-14	2.71E-10	1.32E-08	1.26E-09	1.05E-08	
32 7.60 0.	0.	1.71E-21	0.	1.50E-23	0.	1.08E-14	2.82E-10	1.34E-08	1.26E-09	1.00E-08	
33 7.50 0.	0.	1.60E-21	0.	4.00E-25	0.	1.09E-14	2.94E-10	1.36E-08	1.26E-09	1.12E-08	
34 7.40 0.	0.	1.45E-21	0.	4.32E-24	0.	1.09E-14	3.06E-10	1.37E-08	1.30E-09	1.16E-08	
35 7.30 0.	0.	1.30E-21	0.	1.60E-23	0.	1.06E-14	3.19E-10	1.32E-08	1.32E-09	1.10E-08	
36 7.20 0.	0.	1.26E-21	0.	4.01E-23	0.	1.06E-14	3.32E-10	1.31E-08	1.34E-09	1.15E-08	
37 7.10 0.	0.	1.22E-21	0.	1.00E-22	0.	1.05E-14	3.44E-10	1.33E-08	1.37E-09	1.20E-08	
38 7.00 0.	0.	1.13E-21	0.	2.00E-22	0.	1.06E-14	3.51E-10	1.36E-08	1.39E-09	1.25E-08	
39 6.90 0.	0.	1.05E-21	0.	4.02E-22	0.	1.08E-14	3.77E-10	1.33E-08	1.41E-09	1.31E-08	
40 6.80 0.	0.	1.02E-21	0.	6.00E-22	0.	1.09E-14	3.90E-10	1.38E-08	1.44E-09	1.36E-08	
41 6.70 0.	0.	9.02E-22	0.	6.02E-22	0.	1.11E-14	4.12E-10	1.23E-08	1.40E-09	1.41E-08	
42 6.60 0.	0.	8.50E-22	0.	5.03E-22	0.	1.15E-14	4.32E-10	1.20E-08	1.49E-09	1.47E-08	
43 6.50 0.	0.	6.50E-22	0.	8.07E-22	0.	1.15E-14	4.52E-10	1.32E-08	1.51E-09	1.52E-08	
44 6.40 0.	0.	4.63E-22	0.	8.05E-24	0.	1.16E-14	4.74E-10	1.37E-08	1.54E-09	1.58E-08	
45 6.30 0.	0.	2.94E-22	0.	1.23E-23	0.	1.10E-14	4.97E-10	1.12E-08	1.57E-09	1.53E-08	
46 6.20 0.	0.	1.65E-22	0.	1.76E-23	0.	1.09E-14	5.21E-10	1.10E-08	1.60E-09	1.49E-08	
47 6.10 0.	0.	7.00E-23	0.	5.85E-23	0.	1.21E-14	5.47E-10	1.13E-08	1.63E-09	1.75E-08	
48 6.00 0.	0.	2.02E-23	0.	4.92E-23	0.	1.21E-14	5.75E-10	1.17E-08	1.17E-09	6.54E-09	
49 5.90 0.	0.	1.45E-24	0.	7.76E-23	0.	1.23E-14	6.05E-10	1.49E-08	1.16E-09	6.73E-09	
50 5.80 0.	0.	3.67E-26	0.	1.02E-22	0.	1.19E-14	6.37E-10	1.51E-08	1.19E-09	6.93E-09	
51 5.70 0.	0.	1.21E-22	0.	1.21E-22	0.	1.06E-14	6.72E-10	1.52E-09	1.21E-09	7.20E-09	

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON Q2 S-R ENERGY BAUS		TEMPERATURE (DEGREES K) 20000.		DENSITY (GM/CC) 1.293E-03 (1.0E-05 NORMAL)		O- FREE-FREE M P.E.		O P.E.		TOTAL AIR	
1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.
52	5.6 1.27E-30	0.	0.	1.05E-22	6.74E-22	0.	0.	1.92E-14	7.09E-10	5.61E-09	1.23E-09
53	5.50 0.	0.	0.	1.20E-22	6.24E-22	0.	0.	1.93E-14	7.49E-10	5.91E-09	1.25E-09
54	5.40 0.	0.	0.	1.10E-22	5.17E-22	0.	0.	1.94E-14	7.97E-10	6.23E-09	1.27E-09
55	5.30 0.	0.	0.	1.25E-22	6.44E-22	0.	0.	1.95E-14	8.39E-10	6.56E-09	1.30E-09
56	5.20 0.	0.	0.	1.32E-22	5.01E-22	0.	0.	1.96E-14	8.84E-10	6.89E-09	1.33E-09
57	5.10 0.	0.	0.	1.32E-22	6.40E-22	0.	0.	1.98E-14	9.31E-10	7.22E-09	1.36E-09
58	5.00 1.77E-23	0.	0.	1.22E-22	6.00E-22	0.	0.	1.99E-14	9.80E-10	7.56E-09	1.39E-09
59	4.90 4.35E-23	0.	0.	1.30E-22	6.70E-22	0.	0.	2.01E-14	1.04E-09	7.92E-09	1.43E-09
60	4.8 4.20E-23	0.	0.	1.47E-22	6.31E-22	0.	0.	2.03E-14	1.11E-09	8.25E-09	1.46E-09
61	4.7 1.12E-22	0.	0.	1.40E-22	5.74E-22	0.	0.	2.05E-14	1.21E-09	8.74E-09	1.49E-09
62	4.6 1.42E-22	0.	0.	1.53E-22	5.22E-22	0.	0.	2.08E-14	1.32E-09	9.36E-09	1.54E-09
63	4.5 1.64E-22	0.	0.	1.41E-22	3.94E-22	0.	0.	2.08E-14	1.37E-09	9.06E-09	1.51E-09
64	4.4 1.70E-22	0.	0.	1.42E-22	2.60E-22	0.	0.	2.09E-14	1.47E-09	1.07E-08	1.56E-09
65	4.3 1.75E-22	0.	0.	1.37E-22	1.71E-22	0.	0.	2.11E-14	1.54E-09	1.13E-08	1.58E-09
66	4.2 1.45E-22	0.	0.	1.44E-22	1.10E-22	0.	0.	2.13E-14	1.69E-09	1.21E-08	1.64E-09
67	4.1 1.51E-22	0.	0.	1.42E-22	3.32E-23	0.	0.	2.14E-14	1.82E-09	1.27E-08	1.67E-09
68	4.0 1.45E-22	0.	0.	1.38E-22	2.44E-23	0.	0.	2.14E-14	1.95E-09	1.35E-08	1.71E-09
69	3.9 1.20E-22	0.	0.	1.29E-22	9.30E-24	0.	0.	2.14E-14	2.12E-09	1.39E-08	1.74E-09
70	3.8 1.33E-22	0.	0.	1.30E-22	0.	0.	0.	2.13E-14	2.29E-09	1.46E-08	1.77E-09
71	3.7 1.15E-22	0.	0.	1.21E-22	0.	0.	0.	2.09E-14	2.46E-09	1.53E-08	1.80E-09
72	3.60 1.02E-22	0.	0.	1.20E-22	0.	0.	0.	1.94E-14	2.70E-09	1.62E-08	1.85E-09
73	3.50 1.32E-22	0.	0.	1.05E-22	0.	0.	0.	1.80E-14	2.94E-09	1.71E-08	1.90E-09
74	3.40 9.40E-23	0.	0.	1.18E-22	0.	0.	0.	1.68E-14	3.21E-09	1.80E-08	1.96E-09
75	3.30 7.61E-23	0.	0.	1.32E-22	9.51E-23	0.	0.	1.64E-14	3.52E-09	1.84E-08	1.99E-09
76	3.20 6.70E-23	0.	0.	1.25E-22	1.00E-22	0.	0.	1.64E-14	3.86E-09	1.91E-08	2.03E-09
77	3.10 6.40E-23	0.	0.	1.25E-22	9.60E-23	0.	0.	1.64E-14	4.20E-09	1.99E-08	2.08E-09
78	3.00 5.80E-23	0.	0.	1.25E-22	9.15E-23	0.	0.	1.64E-14	4.70E-09	2.08E-08	2.14E-09
79	2.90 4.90E-23	0.	0.	4.74E-22	6.80E-23	0.	0.	1.65E-14	5.21E-09	2.17E-08	2.20E-09
80	2.80 5.20E-23	0.	0.	2.29E-22	4.64E-23	0.	0.	1.65E-14	5.80E-09	2.27E-08	2.27E-09
81	2.70 3.43E-23	0.	0.	1.00E-22	5.91E-23	0.	0.	1.65E-14	6.48E-09	2.37E-08	2.35E-09
82	2.60 1.43E-23	0.	0.	5.10E-23	1.21E-23	0.	0.	1.65E-14	7.26E-09	2.48E-08	2.43E-09
83	2.50 1.11E-24	0.	0.	5.42E-24	6.82E-24	0.	0.	1.65E-14	8.18E-09	2.60E-08	2.52E-09
84	2.4 0.	0.	0.	4.47E-24	3.28E-24	0.	0.	1.65E-14	9.27E-09	2.72E-08	2.61E-09
85	2.30 0.	0.	0.	0.	0.	0.	0.	1.65E-14	1.05E-08	2.85E-08	2.71E-09
86	2.20 0.	0.	0.	0.	0.	0.	0.	1.65E-14	1.21E-08	3.00E-08	2.80E-09
87	2.10 0.	0.	0.	0.	0.	0.	0.	1.65E-14	1.39E-08	3.16E-08	2.90E-09
88	2.00 0.	0.	0.	0.	0.	0.	0.	1.65E-14	1.59E-08	3.34E-08	3.00E-09
89	1.90 0.	0.	0.	0.	0.	0.	0.	1.65E-14	1.81E-08	3.53E-08	3.10E-09
90	1.80 0.	0.	0.	0.	0.	0.	0.	1.65E-14	2.05E-08	3.74E-08	3.20E-09
91	1.70 0.	0.	0.	0.	0.	0.	0.	1.65E-14	2.32E-08	4.00E-08	3.30E-09
92	1.60 0.	0.	0.	0.	0.	0.	0.	1.65E-14	2.63E-08	4.31E-08	3.40E-09
93	1.50 0.	0.	0.	0.	0.	0.	0.	1.65E-14	3.00E-08	4.68E-08	3.50E-09
94	1.40 0.	0.	0.	0.	0.	0.	0.	1.65E-14	3.42E-08	5.11E-08	3.60E-09
95	1.30 0.	0.	0.	0.	0.	0.	0.	1.65E-14	3.90E-08	5.60E-08	3.70E-09
96	1.20 0.	0.	0.	0.	0.	0.	0.	1.65E-14	4.44E-08	6.15E-08	3.80E-09
97	1.10 0.	0.	0.	0.	0.	0.	0.	1.65E-14	5.05E-08	6.77E-08	3.90E-09
98	1.00 0.	0.	0.	0.	0.	0.	0.	1.65E-14	5.74E-08	7.46E-08	4.00E-09
99	0.90 0.	0.	0.	0.	0.	0.	0.	1.65E-14	6.52E-08	8.23E-08	4.10E-09
100	0.80 0.	0.	0.	0.	0.	0.	0.	1.65E-14	7.40E-08	9.09E-08	4.20E-09
101	0.70 0.	0.	0.	0.	0.	0.	0.	1.65E-14	8.38E-08	1.00E-07	4.30E-09
102	0.60 0.	0.	0.	0.	0.	0.	0.	1.65E-14	9.46E-08	1.11E-07	4.40E-09

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES M) 2000. DENSITY (GM/CC) 1.293E-09 (1.0E-06 NORMAL)

PHOTON D2 5-R ENERGY HAVDS E.V.	02 5-R CONT.	NO. 1	NO BETA	NO GAMMA	NO 2	0- PHOTO-DET (10MS)	FREE-FREE N	P.E.	3 P.E.	TOTAL AIR
1 10.70 0.	0.	1.97E-25	0.	0.	0.	2.44E-17	2.20E-12	3.23E-10	3.70E-11	3.63E-10
2 10.80 0.	0.	1.01E-25	0.	0.	0.	2.44E-17	2.35E-12	3.27E-10	3.77E-11	3.66E-10
3 10.90 0.	0.	1.04E-25	0.	0.	0.	2.44E-17	2.42E-12	3.27E-10	3.77E-11	3.67E-10
4 10.95 0.	0.	1.76E-25	0.	0.	0.	2.49E-17	2.40E-12	3.30E-10	3.76E-11	3.70E-10
5 10.98 0.	0.	1.55E-25	0.	0.	0.	2.49E-17	2.56E-12	3.33E-10	3.76E-11	3.73E-10
6 10.99 0.	0.	1.61E-25	0.	0.	0.	2.49E-17	2.64E-12	3.38E-10	3.79E-11	3.78E-10
7 10.99 0.	0.	1.52E-25	0.	0.	0.	2.46E-17	2.72E-12	3.43E-10	3.81E-11	3.83E-10
8 10.99 0.	0.	1.35E-25	0.	0.	0.	2.46E-17	2.80E-12	3.46E-10	3.84E-11	3.86E-10
9 9.99 0.	0.	1.30E-25	0.	0.	0.	2.46E-17	2.88E-12	3.52E-10	3.87E-11	3.90E-10
10 9.99 0.	0.	1.32E-25	0.	0.	0.	2.47E-17	2.96E-12	3.57E-10	3.90E-11	3.92E-10
11 9.99 0.	0.	1.25E-25	0.	0.	0.	2.47E-17	3.04E-12	3.62E-10	3.93E-11	3.95E-10
12 9.99 0.	0.	1.25E-25	0.	0.	0.	2.48E-17	3.12E-12	3.67E-10	3.95E-11	3.97E-10
13 9.99 0.	0.	1.00E-25	0.	0.	0.	2.48E-17	3.20E-12	3.72E-10	3.98E-11	4.00E-10
14 9.99 0.	0.	1.03E-25	0.	0.	0.	2.49E-17	3.28E-12	3.77E-10	4.01E-11	4.03E-10
15 9.99 0.	0.	1.06E-25	0.	0.	0.	2.50E-17	3.36E-12	3.82E-10	4.04E-11	4.06E-10
16 9.99 0.	0.	0.90E-26	0.	0.	0.	2.51E-17	3.44E-12	3.87E-10	4.07E-11	4.09E-10
17 9.99 0.	0.	9.10E-26	0.	0.	0.	2.52E-17	3.52E-12	3.92E-10	4.10E-11	4.12E-10
18 9.99 0.	0.	8.41E-26	0.	0.	0.	2.53E-17	3.60E-12	3.97E-10	4.13E-11	4.15E-10
19 9.99 0.	0.	7.86E-26	0.	0.	0.	2.54E-17	3.68E-12	4.02E-10	4.16E-11	4.18E-10
20 8.00 0.	0.	7.76E-26	0.	0.	0.	2.54E-17	3.76E-12	4.07E-10	4.19E-11	4.21E-10
21 8.70 0.	0.	6.82E-26	0.	0.	0.	2.55E-17	3.84E-12	4.12E-10	4.22E-11	4.24E-10
22 8.60 0.	0.	7.05E-26	0.	0.	0.	2.56E-17	3.92E-12	4.17E-10	4.25E-11	4.27E-10
23 8.50 0.	0.	6.26E-26	0.	0.	0.	2.57E-17	4.00E-12	4.22E-10	4.28E-11	4.30E-10
24 8.40 0.	0.	6.25E-26	0.	0.	0.	2.58E-17	4.08E-12	4.27E-10	4.31E-11	4.33E-10
25 8.30 0.	0.	5.37E-26	0.	0.	0.	2.60E-17	4.16E-12	4.32E-10	4.34E-11	4.36E-10
26 8.20 0.	0.	5.46E-26	0.	0.	0.	2.61E-17	4.24E-12	4.37E-10	4.37E-11	4.39E-10
27 8.10 0.	0.	4.77E-26	0.	0.	0.	2.63E-17	4.32E-12	4.42E-10	4.40E-11	4.42E-10
28 8.00 0.	0.	4.82E-26	0.	0.	0.	2.64E-17	4.40E-12	4.47E-10	4.43E-11	4.45E-10
29 7.90 0.	0.	4.20E-26	0.	0.	0.	2.65E-17	4.48E-12	4.52E-10	4.46E-11	4.48E-10
30 7.80 0.	0.	4.30E-26	0.	0.	0.	2.67E-17	4.56E-12	4.57E-10	4.49E-11	4.51E-10
31 7.70 0.	0.	3.80E-26	0.	0.	0.	2.68E-17	4.64E-12	4.62E-10	4.52E-11	4.54E-10
32 7.60 0.	0.	3.72E-26	0.	0.	0.	2.69E-17	4.72E-12	4.67E-10	4.55E-11	4.57E-10
33 7.50 0.	0.	3.40E-26	0.	0.	0.	2.71E-17	4.80E-12	4.72E-10	4.58E-11	4.60E-10
34 7.40 0.	0.	3.15E-26	0.	0.	0.	2.72E-17	4.88E-12	4.77E-10	4.61E-11	4.63E-10
35 7.30 0.	0.	3.01E-26	0.	0.	0.	2.74E-17	4.96E-12	4.82E-10	4.64E-11	4.66E-10
36 7.20 0.	0.	2.74E-26	0.	0.	0.	2.75E-17	5.04E-12	4.87E-10	4.67E-11	4.69E-10
37 7.10 0.	0.	2.66E-26	0.	0.	0.	2.77E-17	5.12E-12	4.92E-10	4.70E-11	4.72E-10
38 7.00 0.	0.	2.46E-26	0.	0.	0.	2.80E-17	5.20E-12	4.97E-10	4.73E-11	4.75E-10
39 6.90 0.	0.	2.20E-26	0.	0.	0.	2.82E-17	5.28E-12	5.02E-10	4.76E-11	4.78E-10
40 6.80 0.	0.	2.21E-26	0.	0.	0.	2.84E-17	5.36E-12	5.07E-10	4.79E-11	4.81E-10
41 6.70 0.	0.	1.96E-26	0.	0.	0.	2.86E-17	5.44E-12	5.12E-10	4.82E-11	4.84E-10
42 6.60 0.	0.	1.77E-26	0.	0.	0.	2.89E-17	5.52E-12	5.17E-10	4.85E-11	4.87E-10
43 6.50 0.	0.	1.43E-26	0.	0.	0.	2.91E-17	5.60E-12	5.22E-10	4.88E-11	4.90E-10
44 6.40 0.	0.	1.00E-26	0.	0.	0.	2.93E-17	5.68E-12	5.27E-10	4.91E-11	4.93E-10
45 6.30 0.	0.	6.30E-27	0.	0.	0.	2.95E-17	5.76E-12	5.32E-10	4.94E-11	4.96E-10
46 6.20 0.	0.	3.59E-27	0.	0.	0.	2.98E-17	5.84E-12	5.37E-10	4.97E-11	4.99E-10
47 6.10 0.	0.	1.71E-27	0.	0.	0.	3.00E-17	5.92E-12	5.42E-10	5.00E-11	5.02E-10
48 6.00 0.	0.	4.39E-28	0.	0.	0.	3.02E-17	6.00E-12	5.47E-10	5.03E-11	5.05E-10
49 5.90 0.	0.	3.15E-29	0.	0.	0.	3.04E-17	6.08E-12	5.52E-10	5.06E-11	5.08E-10
50 5.80 0.	0.	7.97E-31	0.	0.	0.	2.98E-17	6.16E-12	5.57E-10	5.09E-11	5.11E-10
51 5.70 0.	0.	2.91E-33	0.	0.	0.	2.80E-17	6.24E-12	5.62E-10	5.12E-11	5.14E-10

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES N) 20000.		DENSITY (GM/CC) 1.203E-09 (1.0E-06 NORMAL)		O- FREE-FREE N		P.E.		TOTAL AIR	
PHOTON 02 S-4	W2	W2	W2	W2	W2	W2	W2	W2	W2
ENERGY WAVES	1ST POS.	2ND POS.	1ST WFS.	DATA	W2	W2	W2	W2	W2
52	5.69	1.32E-34	0.	0.	4.97E-27	3.20E-26	0.	2.60E-17	1.61E-11
53	5.38	0.	0.	0.	6.00E-27	2.90E-26	0.	2.61E-17	1.75E-11
54	5.48	0.	0.	0.	5.79E-27	3.00E-26	0.	2.63E-17	1.79E-11
55	5.39	0.	0.	0.	5.79E-27	3.00E-26	0.	2.64E-17	1.90E-11
56	5.20	0.	0.	0.	6.27E-27	3.30E-26	0.	2.64E-17	2.00E-11
57	5.10	0.	0.	0.	6.20E-27	3.80E-26	0.	2.64E-17	2.13E-11
58	5.00	1.04E-27	0.	0.	5.77E-27	3.80E-26	0.	2.71E-17	2.27E-11
59	4.90	4.51E-27	0.	0.	6.40E-27	3.10E-26	0.	2.73E-17	2.27E-11
60	4.80	8.54E-27	0.	0.	6.40E-27	3.10E-26	0.	2.73E-17	2.41E-11
61	4.70	1.16E-26	0.	0.	7.02E-27	2.71E-26	0.	2.73E-17	2.41E-11
62	4.60	1.02E-26	0.	0.	7.75E-27	2.40E-26	0.	2.80E-17	2.91E-11
63	4.50	1.72E-26	0.	0.	6.69E-27	1.80E-26	0.	2.80E-17	3.11E-11
64	4.40	1.05E-26	0.	0.	6.79E-27	1.70E-26	0.	2.84E-17	3.33E-11
65	4.30	1.70E-26	0.	0.	6.49E-27	1.10E-27	0.	2.84E-17	3.77E-11
66	4.20	1.44E-26	0.	0.	6.93E-27	5.60E-27	0.	2.89E-17	3.84E-11
67	4.10	1.77E-26	0.	0.	6.93E-27	1.50E-27	0.	2.90E-17	4.12E-11
68	4.00	1.45E-26	0.	0.	6.90E-27	1.10E-27	0.	2.91E-17	4.45E-11
69	3.90	1.25E-26	0.	0.	4.83E-26	4.41E-28	0.	2.90E-17	4.80E-11
70	3.80	1.37E-26	0.	0.	7.70E-26	6.41E-27	0.	2.90E-17	5.10E-11
71	3.70	1.24E-26	0.	0.	7.90E-26	5.79E-27	0.	2.90E-17	5.27E-11
72	3.60	1.12E-26	0.	0.	5.81E-26	4.19E-27	0.	2.90E-17	5.69E-11
73	3.50	1.30E-26	0.	0.	7.50E-26	4.90E-27	0.	2.90E-17	6.15E-11
74	3.40	9.31E-27	0.	0.	4.94E-26	5.80E-27	0.	1.41E-17	7.27E-11
75	3.30	7.08E-27	0.	0.	5.80E-26	4.51E-27	0.	1.41E-17	7.27E-11
76	3.20	6.95E-27	0.	0.	3.37E-26	4.41E-27	0.	1.41E-17	7.27E-11
77	3.10	4.72E-27	0.	0.	2.63E-26	9.20E-27	0.	1.41E-17	7.27E-11
78	3.00	6.09E-27	0.	0.	1.63E-26	2.04E-26	0.	1.42E-17	1.86E-10
79	2.90	5.10E-27	0.	0.	1.08E-26	1.11E-26	0.	1.42E-17	1.86E-10
80	2.80	5.43E-27	0.	0.	4.94E-27	7.60E-27	0.	1.42E-17	1.86E-10
81	2.70	3.54E-27	0.	0.	2.34E-27	9.42E-27	0.	1.42E-17	1.86E-10
82	2.60	1.71E-27	0.	0.	1.12E-27	1.00E-27	0.	1.42E-17	1.86E-10
83	2.50	1.21E-28	0.	0.	1.10E-28	9.80E-22	0.	1.42E-17	1.86E-10
84	2.40	0.	0.	0.	5.28E-27	0.	0.	1.42E-17	1.86E-10
85	2.30	0.	0.	0.	1.94E-26	0.	0.	1.42E-17	1.86E-10
86	2.20	0.	0.	0.	4.12E-26	0.	0.	1.41E-17	1.86E-10
87	2.10	0.	0.	0.	4.21E-26	0.	0.	1.40E-17	1.86E-10
88	2.00	0.	0.	0.	0.42E-26	0.	0.	1.35E-17	1.86E-10
89	1.90	0.	0.	0.	1.01E-25	0.	0.	1.30E-17	1.86E-10
90	1.80	0.	0.	0.	0.00E-26	0.	0.	1.29E-17	1.86E-10
91	1.70	0.	0.	0.	9.09E-26	0.	0.	1.17E-17	1.86E-10
92	1.60	0.	0.	0.	7.43E-26	0.	0.	9.93E-18	1.86E-10
93	1.50	0.	0.	0.	8.47E-26	0.	0.	4.51E-18	1.86E-10
94	1.40	0.	0.	0.	8.34E-26	0.	0.	0.	1.86E-10
95	1.30	0.	0.	0.	6.30E-26	0.	0.	0.	1.86E-10
96	1.20	0.	0.	0.	6.10E-26	0.	0.	0.	1.86E-10
97	1.10	0.	0.	0.	5.09E-26	0.	0.	0.	1.86E-10
98	1.00	0.	0.	0.	5.41E-26	0.	0.	0.	1.86E-10
99	0.90	0.	0.	0.	4.44E-26	0.	0.	0.	1.86E-10
100	0.80	0.	0.	0.	2.89E-26	0.	0.	0.	1.86E-10
101	0.70	0.	0.	0.	4.09E-27	0.	0.	0.	1.86E-10
102	0.60	0.	0.	0.	1.89E-27	0.	0.	0.	1.86E-10

ZINCERATE (ZINC) 7000, 8631V (M/CC) 1.79E-02 (1.0E 01 NORMAL)

PHOTON QZ 5-R ENERGY NANOBS E.V.	QZ 5-R CENT.	QZ 5-R W-4 C-1	NO DATA	NO GAMMA	NO 2	D- FACE-FREE		P.E.	TOTAL AIB	
						PHOTO-MET (1000S)	P.E.			
1 10.70 0.			0.	0.	0.	5.10E 00	4.80E-01	3.02E 02	5.20E 00	3.13E 02
2 10.60 0.			0.	0.	0.	5.11E 00	5.04E-01	1.97E 01	5.20E 00	3.09E 01
3 10.50 0.			0.	0.	0.	5.11E 00	5.15E-01	1.97E 01	5.20E 00	3.10E 01
4 10.40 0.			0.	0.	0.	5.12E 00	5.14E-01	1.90E 01	5.22E 00	3.11E 01
5 10.30 0.			0.	0.	0.	5.12E 00	5.50E-01	1.99E 01	5.19E 00	3.11E 01
6 10.20 0.			0.	0.	0.	5.12E 00	5.07E-01	1.99E 01	5.17E 00	3.11E 01
7 10.10 0.			0.	0.	0.	5.14E 00	5.04E-01	1.99E 01	5.15E 00	3.11E 01
8 10.00 0.			0.	0.	0.	5.14E 00	6.07E-01	1.99E 01	5.12E 00	3.11E 01
9 9.90 0.			0.	0.	0.	5.14E 00	6.20E-01	1.99E 01	5.10E 00	3.11E 01
10 9.80 0.			0.	0.	0.	5.17E 00	6.40E-01	2.08E 01	5.05E 00	3.11E 01
11 9.70 0.			0.	0.	0.	5.10E 00	6.40E-01	2.00E 01	5.05E 00	3.12E 01
12 9.60 0.			0.	0.	0.	5.10E 00	6.01E-01	2.01E 01	5.03E 00	3.12E 01
13 9.50 0.			0.	0.	0.	5.10E 00	7.03E-01	2.01E 01	5.01E 00	3.13E 01
14 9.40 0.			0.	0.	0.	5.21E 00	7.24E-01	2.02E 01	4.98E 00	3.13E 01
15 9.30 0.			0.	0.	0.	5.23E 00	7.50E-01	2.03E 01	4.94E 00	3.14E 01
16 9.20 0.			0.	0.	0.	5.25E 00	7.75E-01	2.03E 01	4.94E 00	3.15E 01
17 9.10 0.			0.	0.	0.	5.27E 00	8.01E-01	2.07E 00	4.92E 00	1.93E 01
18 9.00 0.			0.	0.	0.	5.29E 00	8.20E-01	2.00E 00	4.90E 00	1.93E 01
19 8.90 0.			0.	0.	0.	5.31E 00	8.57E-01	2.00E 00	4.87E 00	1.93E 01
20 8.80 0.			0.	0.	0.	5.34E 00	8.04E-01	2.11E 00	4.85E 00	1.93E 01
21 8.70 0.			0.	0.	0.	5.35E 00	9.08E-01	2.12E 00	4.83E 00	1.94E 01
22 8.60 0.			0.	0.	0.	5.36E 00	9.50E-01	2.14E 00	4.81E 00	1.94E 01
23 8.50 0.			0.	0.	0.	5.30E 00	9.85E-01	2.17E 00	4.79E 00	1.95E 01
24 8.40 0.			0.	0.	0.	5.41E 00	1.02E 00	2.20E 00	4.77E 00	1.96E 01
25 8.30 0.			0.	0.	0.	5.44E 00	1.06E 00	2.24E 00	4.76E 00	1.96E 01
26 8.20 0.			0.	0.	0.	5.50E 00	1.10E 00	2.31E 00	4.77E 00	1.96E 01
27 8.10 0.			0.	0.	0.	5.53E 00	1.10E 00	2.37E 00	4.78E 00	2.00E 01
28 8.00 0.			0.	0.	0.	5.55E 00	1.23E 00	2.43E 00	4.78E 00	2.01E 01
29 7.90 0.			0.	0.	0.	5.50E 00	1.20E 00	2.40E 00	4.78E 00	2.02E 01
30 7.80 0.			0.	0.	0.	5.61E 00	1.33E 00	2.56E 00	4.79E 00	2.04E 01
31 7.70 0.			0.	0.	0.	5.64E 00	1.30E 00	2.62E 00	4.79E 00	2.05E 01
32 7.60 0.			0.	3.64E-00	0.	5.47E 00	1.44E 00	2.60E 00	4.79E 00	2.07E 01
33 7.50 0.			0.	1.14E-05	0.	5.70E 00	1.50E 00	2.75E 00	4.80E 00	2.08E 01
34 7.40 0.			0.	1.05E-04	0.	5.73E 00	1.54E 00	2.81E 00	4.80E 00	2.10E 01
35 7.30 0.			0.	3.99E-04	0.	5.74E 00	1.63E 00	2.88E 00	4.81E 00	2.11E 01
36 7.20 0.										

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON BANDS		TEMPERATURE (DEGREES K)	DENSITY (GM/CC)	1.293E-02 (1.0E 01 NORMAL)										
PHOTON BANDS	1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	DATA	NO	NO	NO	NO	PHOTO-DEY (IONS)	FREE-FREE	N	P.E.	TOTAL CIB
52	5.00 1.61E-11	0.	0.	0.	2.50E-03	1.61E-02	0.	0.	0.	5.45E 00	3.49E 00	1.06E 01	5.15E 00	2.47E 01
53	5.50 0.	0.	0.	0.	3.00E-03	1.49E-02	0.	0.	0.	5.47E 00	3.60E 00	1.00E 01	5.20E 00	2.52E 01
54	5.00 0.	0.	0.	0.	2.00E-03	1.20E-02	0.	0.	0.	5.50E 00	3.00E 00	1.11E 01	5.27E 00	2.50E 01
55	5.50 0.	0.	0.	0.	2.90E-03	1.90E-02	0.	0.	0.	5.50E 00	4.12E 00	1.14E 01	5.34E 00	2.60E 01
56	5.20 0.	0.	0.	0.	3.10E-03	1.21E-02	0.	0.	0.	5.57E 00	4.37E 00	1.17E 01	5.42E 00	2.71E 01
57	5.10 0.	0.	0.	0.	3.19E-03	1.55E-02	0.	0.	0.	5.62E 00	4.43E 00	1.21E 01	5.51E 00	2.79E 01
58	5.00 2.20E-04	0.	0.	0.	2.90E-03	1.40E-02	0.	0.	0.	5.67E 00	4.52E 00	1.25E 01	5.60E 00	2.87E 01
59	4.90 5.50E-04	0.	0.	0.	3.20E-03	1.65E-02	0.	0.	0.	5.71E 00	5.23E 00	1.29E 01	5.70E 00	2.96E 01
60	4.00 1.00E-03	0.	0.	0.	3.50E-03	1.54E-02	0.	0.	0.	5.76E 00	5.57E 00	1.34E 01	5.82E 00	3.06E 01
61	4.70 1.45E-03	0.	0.	0.	3.90E-03	1.41E-02	0.	0.	0.	5.81E 00	5.93E 00	1.39E 01	5.90E 00	3.17E 01
62	4.00 2.00E-03	0.	0.	0.	3.71E-03	1.25E-02	0.	0.	0.	5.86E 00	6.33E 00	1.45E 01	6.14E 00	3.29E 01
63	4.50 2.15E-03	0.	0.	0.	3.44E-03	9.60E-03	0.	0.	0.	5.90E 00	6.77E 00	1.53E 01	6.31E 00	3.43E 01
64	4.00 2.35E-03	0.	0.	0.	3.47E-03	6.57E-03	0.	0.	0.	5.95E 00	7.25E 00	1.61E 01	6.40E 00	3.50E 01
65	4.00 2.35E-03	0.	0.	0.	3.35E-03	4.10E-03	0.	0.	0.	6.00E 00	7.77E 00	1.69E 01	6.44E 00	3.74E 01
66	4.20 2.10E-03	0.	0.	0.	3.54E-03	2.07E-03	0.	0.	0.	6.04E 00	8.34E 00	1.78E 01	6.45E 00	3.92E 01
67	4.10 1.90E-03	0.	0.	0.	3.50E-03	0.11E-04	0.	0.	0.	6.07E 00	8.97E 00	1.87E 01	6.42E 00	4.04E 01
68	4.00 1.00E-03	0.	0.	0.	3.41E-03	0.67E-04	0.	0.	0.	6.09E 00	9.67E 00	1.95E 01	6.35E 00	4.09E 01
69	3.90 1.50E-03	0.	0.	0.	3.19E-03	2.25E-04	0.	0.	0.	6.07E 00	1.13E 01	1.94E 01	6.44E 00	4.00E 01
70	3.00 1.75E-03	0.	0.	0.	3.55E-03	0.	0.	0.	0.	6.04E 00	1.13E 01	1.94E 01	6.44E 00	4.00E 01
71	3.70 1.55E-03	0.	0.	0.	3.00E-03	0.	0.	0.	0.	5.95E 00	1.23E 01	1.94E 01	6.39E 00	3.80E 01
72	3.00 1.40E-03	0.	0.	0.	3.25E-03	0.	0.	0.	0.	5.97E 00	1.33E 01	1.77E 01	6.30E 00	4.12E 01
73	3.50 1.30E-03	0.	0.	0.	3.05E-03	0.	0.	0.	0.	5.10E 00	1.45E 01	1.09E 01	4.71E 00	4.26E 01
74	3.40 1.25E-03	0.	0.	0.	3.10E-03	2.95E-03	0.	0.	0.	2.64E 00	1.59E 01	2.09E 01	5.10E 00	4.51E 01
75	3.30 1.05E-03	0.	0.	0.	3.25E-03	0.	0.	0.	0.	2.95E 00	1.74E 01	2.31E 01	5.04E 00	4.93E 01
76	3.20 9.05E-04	0.	0.	0.	3.45E-03	2.53E-03	0.	0.	0.	2.90E 00	1.91E 01	2.52E 01	6.16E 00	5.37E 01
77	3.10 7.05E-04	0.	0.	0.	4.04E-03	9.06E-02	2.42E-03	0.	0.	2.90E 00	2.10E 01	2.74E 01	6.60E 00	5.82E 01
78	2.95 6.70E-04	0.	0.	0.	2.57E-02	5.94E-02	1.81E-03	0.	0.	2.97E 00	2.50E 01	3.21E 01	7.73E 00	6.46E 01
79	2.00 7.15E-04	0.	0.	0.	1.20E-02	4.17E-02	1.79E-03	0.	0.	2.97E 00	2.87E 01	3.49E 01	8.30E 00	7.50E 01
80	2.00 7.15E-04	0.	0.	0.	5.05E-03	5.17E-02	7.25E-04	0.	0.	2.97E 00	3.20E 01	3.79E 01	9.00E 00	8.21E 01
81	2.70 4.75E-04	0.	0.	0.	2.00E-03	5.44E-03	3.27E-04	0.	0.	2.97E 00	3.60E 01	4.12E 01	9.80E 00	8.99E 01
82	2.60 2.20E-04	0.	0.	0.	2.91E-04	5.35E-03	7.91E-05	0.	0.	2.97E 00	4.05E 01	4.70E 01	6.54E 00	9.69E 01
83	2.50 1.61E-05	0.	0.	0.	4.04E-03	3.94E-00	0.	0.	0.	2.97E 00	4.59E 01	5.40E 01	7.34E 00	1.11E 02
84	2.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	2.95E 00	5.23E 01	6.09E 01	8.77E 00	1.13E 02
85	2.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	2.94E 00	5.99E 01	5.70E 01	1.05E 01	1.31E 02
86	2.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	2.93E 00	6.90E 01	6.73E 01	1.21E 01	1.52E 02
87	2.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	2.93E 00	8.01E 01	7.69E 01	1.30E 01	1.74E 02
88	2.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	2.93E 00	9.34E 01	8.83E 01	1.42E 01	2.01E 02
89	1.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	2.91E 00	1.11E 02	1.04E 02	1.97E 01	2.39E 02
90	1.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	2.40E 00	1.32E 02	1.27E 02	2.40E 01	2.60E 02
91	1.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	2.40E 00	1.59E 02	1.49E 02	2.93E 01	3.39E 02
92	1.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	9.45E-01	1.94E 02	1.94E 02	3.43E 01	4.24E 02
93	1.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.40E 02	2.35E 02	4.10E 01	5.24E 02
94	1.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.01E 02	3.20E 02	5.41E 01	6.62E 02
95	1.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.84E 02	5.05E 02	9.44E 01	8.04E 02
96	1.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.82E 02	6.50E 02	6.03E 01	1.02E 03
97	1.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	6.74E 02	5.47E 02	7.00E 01	1.30E 03
98	1.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	9.33E 02	6.30E 02	9.15E 01	1.65E 03
99	0.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.34E 03	7.25E 02	1.05E 02	2.17E 03
100	0.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.03E 03	7.03E 02	1.04E 02	2.92E 03
101	0.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.20E 03	8.76E 02	1.10E 02	4.20E 03
102	0.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES N) 21000.		WAVELLENGTH (NM/CM) 1.202E-03 (1.0E 00 NORMAL)		NO		Q		P.E.		TOTAL AIR	
PHOTON OF S-R	OS S-R	NO	1	NO	NO	NO	NO	NO	NO	NO	NO
ENERGY BANDS	COMT.	NO	1	NO	NO	NO	NO	NO	NO	NO	NO
E.V.											
1 10.70 0.	0.	2.50E-03	0.	0.	0.	1.22E-01	1.07E-02	2.30E 01	4.50E-01	2.49E 01	0.
2 10.60 0.	0.	2.50E-03	0.	0.	0.	1.23E-01	1.08E-02	2.30E 00	4.40E-01	2.17E 00	0.
3 10.50 0.	0.	2.50E-03	0.	0.	0.	1.24E-01	1.09E-02	2.30E 00	4.40E-01	2.10E 00	0.
4 10.40 0.	0.	2.50E-03	0.	0.	0.	1.25E-01	1.10E-02	2.30E 00	4.40E-01	2.10E 00	0.
5 10.30 0.	0.	2.50E-03	0.	0.	0.	1.26E-01	1.11E-02	2.30E 00	4.40E-01	2.10E 00	0.
6 10.20 0.	0.	2.50E-03	0.	0.	0.	1.27E-01	1.12E-02	2.30E 00	4.40E-01	2.10E 00	0.
7 10.10 0.	0.	2.50E-03	0.	0.	0.	1.28E-01	1.13E-02	2.30E 00	4.40E-01	2.10E 00	0.
8 10.00 0.	0.	2.50E-03	0.	0.	0.	1.29E-01	1.14E-02	2.30E 00	4.40E-01	2.10E 00	0.
9 9.90 0.	0.	2.50E-03	0.	0.	0.	1.30E-01	1.15E-02	2.30E 00	4.40E-01	2.10E 00	0.
10 9.80 0.	0.	2.50E-03	0.	0.	0.	1.31E-01	1.16E-02	2.30E 00	4.40E-01	2.10E 00	0.
11 9.70 0.	0.	2.50E-03	0.	0.	0.	1.32E-01	1.17E-02	2.30E 00	4.40E-01	2.10E 00	0.
12 9.60 0.	0.	2.50E-03	0.	0.	0.	1.33E-01	1.18E-02	2.30E 00	4.40E-01	2.10E 00	0.
13 9.50 0.	0.	2.50E-03	0.	0.	0.	1.34E-01	1.19E-02	2.30E 00	4.40E-01	2.10E 00	0.
14 9.40 0.	0.	2.50E-03	0.	0.	0.	1.35E-01	1.20E-02	2.30E 00	4.40E-01	2.10E 00	0.
15 9.30 0.	0.	2.50E-03	0.	0.	0.	1.36E-01	1.21E-02	2.30E 00	4.40E-01	2.10E 00	0.
16 9.20 0.	0.	2.50E-03	0.	0.	0.	1.37E-01	1.22E-02	2.30E 00	4.40E-01	2.10E 00	0.
17 9.10 0.	0.	2.50E-03	0.	0.	0.	1.38E-01	1.23E-02	2.30E 00	4.40E-01	2.10E 00	0.
18 9.00 0.	0.	2.50E-03	0.	0.	0.	1.39E-01	1.24E-02	2.30E 00	4.40E-01	2.10E 00	0.
19 8.90 0.	0.	2.50E-03	0.	0.	0.	1.40E-01	1.25E-02	2.30E 00	4.40E-01	2.10E 00	0.
20 8.80 0.	0.	2.50E-03	0.	0.	0.	1.41E-01	1.26E-02	2.30E 00	4.40E-01	2.10E 00	0.
21 8.70 0.	0.	2.50E-03	0.	0.	0.	1.42E-01	1.27E-02	2.30E 00	4.40E-01	2.10E 00	0.
22 8.60 0.	0.	2.50E-03	0.	0.	0.	1.43E-01	1.28E-02	2.30E 00	4.40E-01	2.10E 00	0.
23 8.50 0.	0.	2.50E-03	0.	0.	0.	1.44E-01	1.29E-02	2.30E 00	4.40E-01	2.10E 00	0.
24 8.40 0.	0.	2.50E-03	0.	0.	0.	1.45E-01	1.30E-02	2.30E 00	4.40E-01	2.10E 00	0.
25 8.30 0.	0.	2.50E-03	0.	0.	0.	1.46E-01	1.31E-02	2.30E 00	4.40E-01	2.10E 00	0.
26 8.20 0.	0.	2.50E-03	0.	0.	0.	1.47E-01	1.32E-02	2.30E 00	4.40E-01	2.10E 00	0.
27 8.10 0.	0.	2.50E-03	0.	0.	0.	1.48E-01	1.33E-02	2.30E 00	4.40E-01	2.10E 00	0.
28 8.00 0.	0.	2.50E-03	0.	0.	0.	1.49E-01	1.34E-02	2.30E 00	4.40E-01	2.10E 00	0.
29 7.90 0.	0.	2.50E-03	0.	0.	0.	1.50E-01	1.35E-02	2.30E 00	4.40E-01	2.10E 00	0.
30 7.80 0.	0.	2.50E-03	0.	0.	0.	1.51E-01	1.36E-02	2.30E 00	4.40E-01	2.10E 00	0.
31 7.70 0.	0.	2.50E-03	0.	0.	0.	1.52E-01	1.37E-02	2.30E 00	4.40E-01	2.10E 00	0.
32 7.60 0.	0.	2.50E-03	0.	0.	0.	1.53E-01	1.38E-02	2.30E 00	4.40E-01	2.10E 00	0.
33 7.50 0.	0.	2.50E-03	0.	0.	0.	1.54E-01	1.39E-02	2.30E 00	4.40E-01	2.10E 00	0.
34 7.40 0.	0.	2.50E-03	0.	0.	0.	1.55E-01	1.40E-02	2.30E 00	4.40E-01	2.10E 00	0.
35 7.30 0.	0.	2.50E-03	0.	0.	0.	1.56E-01	1.41E-02	2.30E 00	4.40E-01	2.10E 00	0.
36 7.20 0.	0.	2.50E-03	0.	0.	0.	1.57E-01	1.42E-02	2.30E 00	4.40E-01	2.10E 00	0.
37 7.10 0.	0.	2.50E-03	0.	0.	0.	1.58E-01	1.43E-02	2.30E 00	4.40E-01	2.10E 00	0.
38 7.00 0.	0.	2.50E-03	0.	0.	0.	1.59E-01	1.44E-02	2.30E 00	4.40E-01	2.10E 00	0.
39 6.90 0.	0.	2.50E-03	0.	0.	0.	1.60E-01	1.45E-02	2.30E 00	4.40E-01	2.10E 00	0.
40 6.80 0.	0.	2.50E-03	0.	0.	0.	1.61E-01	1.46E-02	2.30E 00	4.40E-01	2.10E 00	0.
41 6.70 0.	0.	2.50E-03	0.	0.	0.	1.62E-01	1.47E-02	2.30E 00	4.40E-01	2.10E 00	0.
42 6.60 0.	0.	2.50E-03	0.	0.	0.	1.63E-01	1.48E-02	2.30E 00	4.40E-01	2.10E 00	0.
43 6.50 0.	0.	2.50E-03	0.	0.	0.	1.64E-01	1.49E-02	2.30E 00	4.40E-01	2.10E 00	0.
44 6.40 0.	0.	2.50E-03	0.	0.	0.	1.65E-01	1.50E-02	2.30E 00	4.40E-01	2.10E 00	0.
45 6.30 0.	0.	2.50E-03	0.	0.	0.	1.66E-01	1.51E-02	2.30E 00	4.40E-01	2.10E 00	0.
46 6.20 0.	0.	2.50E-03	0.	0.	0.	1.67E-01	1.52E-02	2.30E 00	4.40E-01	2.10E 00	0.
47 6.10 0.	0.	2.50E-03	0.	0.	0.	1.68E-01	1.53E-02	2.30E 00	4.40E-01	2.10E 00	0.
48 6.00 0.	0.	2.50E-03	0.	0.	0.	1.69E-01	1.54E-02	2.30E 00	4.40E-01	2.10E 00	0.
49 5.90 0.	0.	2.50E-03	0.	0.	0.	1.70E-01	1.55E-02	2.30E 00	4.40E-01	2.10E 00	0.
50 5.80 0.	0.	2.50E-03	0.	0.	0.	1.71E-01	1.56E-02	2.30E 00	4.40E-01	2.10E 00	0.
51 5.70 0.	0.	2.50E-03	0.	0.	0.	1.72E-01	1.57E-02	2.30E 00	4.40E-01	2.10E 00	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 21000. DENSITY (GM/CC) 1.293E-03 (1.0E 00 NORMAL)

PHOTON 02 S-B ENERGY BANDS	1ST POS.	2ND POS.	2ND POS.	2ND POS.	1ST NEG.	NO DATA	NO GAMMA	NO VIB-ROT	NO	0- PHOTO-DET (IONS)	FREE-FREE P.E.	0 P.E.	TOTAL AIR	
52	5.60	1.17E-13	0.	0.	0.	1.09E-05	1.09E-04	0.	0.	1.31E-01	2.79E-01	4.39E-01	1.69E 00	
53	5.50	0.	0.	0.	0.	2.04E-05	1.09E-04	0.	0.	1.31E-01	2.91E-01	4.59E-01	1.72E 00	
54	5.40	0.	0.	0.	0.	1.07E-05	0.38E-05	0.	0.	1.32E-01	3.07E-01	4.98E-01	1.77E 00	
55	5.30	0.	0.	0.	0.	1.07E-05	1.04E-04	0.	0.	1.33E-01	3.25E-01	5.06E-01	1.82E 00	
56	5.20	0.	0.	0.	0.	2.14E-05	0.40E-04	0.	0.	1.34E-01	3.44E-01	5.30E-01	1.87E 00	
57	5.10	0.	0.	0.	0.	2.15E-05	1.04E-04	0.	0.	1.35E-01	3.65E-01	5.59E-01	1.93E 00	
58	5.00	0.	0.	0.	0.	1.00E-05	0.44E-04	0.	0.	1.34E-01	3.80E-01	5.90E-01	1.99E 00	
59	4.90	1.64E-04	0.	0.	0.	2.22E-05	1.09E-04	0.	0.	1.37E-01	4.11E-01	6.22E-01	2.06E 00	
60	4.80	7.05E-04	0.	0.	0.	2.39E-05	1.04E-04	0.	0.	1.38E-01	4.39E-01	6.64E-01	2.14E 00	
61	4.70	1.05E-03	0.	0.	0.	2.42E-05	9.49E-05	0.	0.	1.39E-01	4.68E-01	7.09E-01	2.22E 00	
62	4.60	1.47E-03	0.	0.	0.	2.50E-05	8.40E-05	0.	0.	1.41E-01	5.00E-01	7.59E-01	2.31E 00	
63	4.50	1.56E-03	0.	0.	0.	2.32E-05	6.49E-05	0.	0.	1.42E-01	5.34E-01	8.16E-01	2.42E 00	
64	4.40	1.69E-03	0.	0.	0.	2.34E-05	4.43E-05	0.	0.	1.43E-01	5.72E-01	8.79E-01	2.54E 00	
65	4.30	1.82E-03	0.	0.	0.	2.24E-05	2.81E-05	0.	0.	1.44E-01	6.13E-01	9.48E-01	2.68E 00	
66	4.20	1.52E-03	0.	0.	0.	2.38E-05	1.93E-05	0.	0.	1.45E-01	6.59E-01	1.02E-00	2.83E 00	
67	4.10	1.44E-03	0.	0.	0.	2.30E-05	5.40E-06	0.	0.	1.46E-01	7.09E-01	1.10E-00	2.99E 00	
68	4.00	1.34E-03	0.	0.	0.	2.30E-05	4.09E-06	0.	0.	1.46E-01	7.63E-01	1.19E-00	3.16E 00	
69	3.90	1.15E-03	0.	0.	0.	2.15E-05	1.52E-06	0.	0.	1.45E-01	8.21E-01	1.29E-00	3.34E 00	
70	3.80	1.27E-03	0.	0.	0.	2.33E-05	0.	0.	0.	1.45E-01	8.82E-01	1.40E-00	3.53E 00	
71	3.70	1.15E-03	0.	0.	0.	2.42E-05	0.	0.	0.	1.45E-01	9.47E-01	1.53E-00	3.73E 00	
72	3.60	1.09E-03	0.	0.	0.	2.34E-05	0.	0.	0.	1.44E-01	1.01E-00	1.67E-00	3.94E 00	
73	3.50	9.90E-04	0.	0.	0.	1.10E-03	4.18E-03	0.	0.	1.42E-01	1.06E-00	1.81E-00	4.16E 00	
74	3.40	9.20E-04	0.	0.	0.	7.49E-04	7.07E-03	0.	0.	7.07E-02	1.25E-00	2.02E-00	4.42E-01	
75	3.30	7.42E-04	0.	0.	0.	7.49E-04	1.61E-03	0.	0.	7.06E-02	1.37E-00	2.23E-00	4.72E-01	
76	3.20	6.55E-04	0.	0.	0.	5.28E-04	1.70E-03	0.	0.	7.06E-02	1.51E-00	2.46E-00	5.05E-01	
77	3.10	5.38E-04	0.	0.	0.	4.89E-04	1.12E-03	0.	0.	7.11E-02	1.68E-00	2.71E-00	5.47E-01	
78	3.00	5.77E-04	0.	0.	0.	2.94E-04	1.56E-03	0.	0.	7.12E-02	1.88E-00	2.95E-00	5.91E-01	
79	2.90	4.93E-04	0.	0.	0.	1.61E-04	1.32E-03	0.	0.	7.14E-02	2.09E-00	3.24E-00	6.38E-01	
80	2.80	5.10E-04	0.	0.	0.	7.77E-05	9.24E-04	0.	0.	7.15E-02	2.30E-00	3.58E-00	6.89E-01	
81	2.70	3.41E-04	0.	0.	0.	3.66E-05	1.15E-03	0.	0.	7.15E-02	2.53E-00	3.97E-00	7.44E-01	
82	2.60	1.65E-04	0.	0.	0.	1.78E-05	2.70E-03	0.	0.	7.15E-02	2.80E-00	4.40E-00	8.02E-01	
83	2.50	1.17E-07	0.	0.	0.	1.82E-06	1.19E-04	5.33E-07	0.	7.15E-02	3.08E-00	4.72E-00	8.63E-01	
84	2.40	0.	0.	0.	0.	8.96E-05	5.76E-06	0.	0.	7.15E-02	3.43E-00	5.19E-00	9.33E-01	
85	2.30	0.	0.	0.	0.	0.	0.	0.	0.	7.09E-02	4.13E-00	5.87E-00	1.02E 00	
86	2.20	0.	0.	0.	0.	0.	0.	0.	0.	7.06E-02	4.75E-00	6.69E-00	1.13E 01	
87	2.10	0.	0.	0.	0.	0.	0.	0.	0.	7.06E-02	5.45E-00	7.63E-00	1.25E 01	
88	2.00	0.	0.	0.	0.	0.	0.	0.	0.	6.81E-02	6.32E-00	8.80E-00	1.37E 01	
89	1.90	0.	0.	0.	0.	0.	0.	0.	0.	6.55E-02	7.39E-00	1.00E-00	1.50E 01	
90	1.80	0.	0.	0.	0.	0.	0.	0.	0.	6.26E-02	8.73E-00	1.16E-00	1.65E 01	
91	1.70	0.	0.	0.	0.	0.	0.	0.	0.	5.90E-02	1.04E-01	1.37E-00	1.82E 01	
92	1.60	0.	0.	0.	0.	0.	0.	0.	0.	5.09E-02	1.24E-01	1.61E-00	2.04E 01	
93	1.50	0.	0.	0.	0.	0.	0.	0.	0.	4.09E-02	1.53E-01	1.94E-00	2.37E 01	
94	1.40	0.	0.	0.	0.	0.	0.	0.	0.	2.37E-02	1.96E-01	2.41E-00	3.00E 01	
95	1.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.37E-01	2.50E-01	4.61E-00	5.42E 01
96	1.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	3.94E-01	3.20E-01	5.65E-00	6.90E 01
97	1.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	5.32E-01	4.32E-01	7.62E-00	9.18E 01
98	1.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.30E-01	4.90E-01	1.07E-00	1.21E 02
99	0.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-02	5.74E-01	1.39E-00	1.57E 02
100	0.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	1.40E-02	6.10E-01	1.83E-00	2.31E 02
101	0.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	2.59E-02	6.93E-01	2.61E-00	3.30E 02

ADDITIONAL COEFFICIENTS OF HEATED AIR (INVERSE CH.)

TEMPERATURE (DEGREES F)		DENSITY (LB/CC) 1.2930-04 (1.0E-01 NORMAL)		NO		P.F.		TOTAL AIR	
PHOTON 02 5-0	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9
ENERGY RANGES	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9
CM.	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9
1 10.74 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2 10.04 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3 10.34 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4 10.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5 10.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6 10.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7 10.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8 10.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9 9.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10 9.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11 9.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12 9.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13 9.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14 9.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15 9.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16 9.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17 9.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18 9.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19 8.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20 8.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21 8.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22 8.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23 8.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24 8.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25 8.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26 8.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27 8.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28 8.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29 7.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30 7.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31 7.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32 7.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33 7.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34 7.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35 7.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36 7.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37 7.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38 7.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39 6.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40 6.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41 6.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42 6.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43 6.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44 6.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45 6.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46 6.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47 6.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48 6.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49 5.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50 5.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51 5.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

[illegible]

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)									
TEMPERATURE (DEGREES K) 21000. DENSITY (GM/CC) 1.293E-05 (10.0E-03 NORMAL)									
PHOTON OP 5-6	W2 5-6	W2 5-6	W2 5-6	W2 5-6	W2 5-6	W2 5-6	W2 5-6	W2 5-6	W2 5-6
ENERGY RANGE	CMT.	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8
E.V.		BETA	GAMMA						
1 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51 18.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 2100, DENSITY (GM/CC) 1.293E-05 (10.0E-03 MOL/MOLAL)

PHOTON Q2 S-B ENERGY BAYES	N2 1ST POS.	N2 2ND POS.	N2 1ST NEG.	N2 2ND NEG.	NO META	NO GAMMA	NO VIB-ROY	NO 2	O- PHOTO-DET	FREE-FREE (IONS)	N	P.E.	TOTAL AIR
52	5.60	2.94E-10	0.	0.	2.19E-11	1.41E-10	0.	0.	5.56E-04	3.42E-04	0.63E-04	5.81E-04	1.74E-03
53	5.50	0.	0.	0.	2.08E-11	1.31E-10	0.	0.	5.59E-04	3.42E-04	0.89E-04	5.80E-04	1.78E-03
54	5.40	0.	0.	0.	2.31E-11	1.09E-10	0.	0.	5.82E-04	3.19E-04	1.1E-04	5.93E-04	1.83E-03
55	5.30	0.	0.	0.	2.79E-11	1.23E-10	0.	0.	5.66E-04	3.59E-04	9.31E-04	6.11E-04	1.80E-03
56	5.20	0.	0.	0.	2.97E-11	1.06E-10	0.	0.	5.89E-04	3.59E-04	9.31E-04	6.11E-04	1.80E-03
57	5.10	0.	0.	0.	2.79E-11	1.39E-10	0.	0.	5.74E-04	3.88E-04	9.59E-04	6.30E-04	1.86E-03
58	5.00	0.	0.	0.	2.79E-11	1.29E-10	0.	0.	5.79E-04	4.83E-04	9.59E-04	6.30E-04	2.03E-03
59	4.90	7.95E-12	0.	0.	2.80E-11	1.41E-10	0.	0.	5.84E-04	4.79E-04	1.0E-03	6.41E-04	2.18E-03
60	4.80	1.94E-11	0.	0.	3.11E-11	1.39E-10	0.	0.	5.88E-04	4.59E-04	1.0E-03	6.55E-04	2.18E-03
61	4.70	1.04E-11	0.	0.	3.14E-11	1.23E-10	0.	0.	5.93E-04	4.89E-04	1.10E-03	6.73E-04	2.27E-03
62	4.60	2.96E-11	0.	0.	3.29E-11	1.19E-10	0.	0.	5.98E-04	5.19E-04	1.19E-03	6.91E-04	2.37E-03
63	4.50	2.72E-11	0.	0.	3.01E-11	0.44E-11	0.	0.	6.03E-04	5.59E-04	1.21E-03	7.10E-04	2.48E-03
64	4.40	2.94E-11	0.	0.	3.04E-11	5.76E-11	0.	0.	6.08E-04	5.94E-04	1.21E-03	7.29E-04	2.60E-03
65	4.30	2.82E-11	0.	0.	2.94E-11	3.66E-11	0.	0.	6.13E-04	6.34E-04	1.21E-03	7.49E-04	2.74E-03
66	4.20	2.85E-11	0.	0.	3.18E-11	2.59E-11	0.	0.	6.17E-04	6.49E-04	1.41E-03	7.70E-04	2.87E-03
67	4.10	2.31E-11	0.	0.	3.07E-11	7.10E-12	0.	0.	6.20E-04	7.30E-04	1.49E-03	7.97E-04	2.99E-03
68	4.00	2.34E-11	0.	0.	2.99E-11	5.39E-12	0.	0.	6.23E-04	7.93E-04	1.59E-03	8.37E-04	3.23E-03
69	3.90	2.91E-11	0.	0.	2.86E-11	1.07E-12	0.	0.	6.27E-04	8.96E-04	1.59E-03	8.96E-04	3.50E-03
70	3.80	2.92E-11	0.	0.	2.86E-11	1.07E-12	0.	0.	6.30E-04	9.26E-04	1.59E-03	9.26E-04	3.70E-03
71	3.70	2.89E-11	0.	0.	2.86E-11	1.07E-12	0.	0.	6.33E-04	9.26E-04	1.59E-03	9.26E-04	3.70E-03
72	3.60	1.82E-11	0.	0.	2.86E-11	1.07E-12	0.	0.	6.36E-04	9.26E-04	1.59E-03	9.26E-04	3.70E-03
73	3.50	1.78E-11	0.	0.	2.86E-11	1.07E-12	0.	0.	6.39E-04	9.26E-04	1.59E-03	9.26E-04	3.70E-03
74	3.40	1.46E-11	0.	0.	2.86E-11	1.07E-12	0.	0.	6.42E-04	9.26E-04	1.59E-03	9.26E-04	3.70E-03
75	3.30	1.99E-11	0.	0.	2.86E-11	1.07E-12	0.	0.	6.45E-04	9.26E-04	1.59E-03	9.26E-04	3.70E-03
76	3.20	1.45E-11	0.	0.	2.86E-11	1.07E-12	0.	0.	6.48E-04	9.26E-04	1.59E-03	9.26E-04	3.70E-03
77	3.10	1.11E-11	0.	0.	2.86E-11	1.07E-12	0.	0.	6.51E-04	9.26E-04	1.59E-03	9.26E-04	3.70E-03
78	3.00	1.91E-11	0.	0.	2.86E-11	1.07E-12	0.	0.	6.54E-04	9.26E-04	1.59E-03	9.26E-04	3.70E-03
79	2.90	0.92E-12	0.	0.	1.54E-10	3.97E-08	1.99E-11	0.	3.08E-04	1.30E-03	1.67E-03	5.84E-04	3.56E-03
80	2.80	0.23E-12	0.	0.	7.54E-11	2.79E-08	1.13E-11	0.	3.01E-04	1.42E-03	1.84E-03	6.37E-04	3.51E-03
81	2.70	5.94E-12	0.	0.	3.93E-11	5.44E-08	4.59E-12	0.	3.04E-04	2.49E-03	3.05E-03	1.02E-03	6.67E-03
82	2.60	2.00E-12	0.	0.	1.77E-11	3.69E-09	2.60E-12	0.	3.04E-04	2.99E-03	3.2E-03	1.10E-03	7.99E-03
83	2.50	2.04E-13	0.	0.	1.77E-12	3.50E-09	6.93E-13	0.	3.04E-04	3.3E-03	3.6E-03	7.13E-04	7.93E-03
84	2.40	0.	0.	0.	2.70E-09	7.48E-14	0.	0.	3.04E-04	3.71E-03	3.9E-03	8.29E-04	6.90E-03
85	2.30	0.	0.	0.	2.9E-10	0.	0.	0.	3.01E-04	4.27E-03	3.9E-03	9.67E-04	9.13E-03
86	2.20	0.	0.	0.	0.	0.	0.	0.	3.01E-04	4.9E-03	4.5E-03	1.18E-03	1.06E-02
87	2.10	0.	0.	0.	0.	0.	0.	0.	2.99E-04	5.6E-03	5.2E-03	1.37E-03	1.23E-02
88	2.00	0.	0.	0.	0.	0.	0.	0.	2.99E-04	6.9E-03	8.8E-03	1.56E-03	1.42E-02
89	1.90	0.	0.	0.	0.	0.	0.	0.	2.98E-04	7.4E-03	9.9E-03	1.82E-03	1.64E-02
90	1.80	0.	0.	0.	0.	0.	0.	0.	2.96E-04	8.0E-03	0.31E-03	2.22E-03	1.90E-02
91	1.70	0.	7.	0.	0.	0.	0.	0.	2.91E-04	1.0E-02	9.0E-03	2.70E-03	2.39E-02
92	1.60	0.	0.	0.	0.	0.	0.	0.	2.91E-04	1.3E-02	1.17E-02	3.18E-03	2.99E-02
93	1.50	0.	0.	0.	0.	0.	0.	0.	2.91E-04	1.5E-02	1.3E-02	3.66E-03	3.89E-02
94	1.40	0.	0.	0.	0.	0.	0.	0.	2.91E-04	1.7E-02	1.5E-02	4.16E-03	4.93E-02
95	1.30	0.	0.	0.	0.	0.	0.	0.	2.91E-04	1.9E-02	1.7E-02	4.68E-03	6.22E-02
96	1.20	0.	0.	0.	0.	0.	0.	0.	2.91E-04	2.1E-02	1.9E-02	5.19E-03	8.39E-02
97	1.10	0.	0.	0.	0.	0.	0.	0.	2.91E-04	2.3E-02	2.1E-02	5.70E-03	0.39E-01
98	1.00	0.	0.	0.	0.	0.	0.	0.	2.91E-04	2.5E-02	2.3E-02	6.22E-03	1.07E-01
99	0.90	0.	0.	0.	0.	0.	0.	0.	2.91E-04	2.7E-02	2.5E-02	6.74E-03	1.66E-01
100	0.80	0.	0.	0.	0.	0.	0.	0.	2.91E-04	2.9E-02	2.7E-02	7.26E-03	2.39E-01
101	0.70	0.	0.	0.	0.	0.	0.	0.	2.91E-04	3.1E-02	2.9E-02	7.78E-03	3.25E-01
102	0.60	0.	0.	0.	0.	0.	0.	0.	2.91E-04	3.3E-02	3.1E-02	8.30E-03	4.25E-01

TEMPERATURE (DEGREES K) 27300. DENSITY (GM/CC) 1.293E-06 (10.0E-04 NORMAL)

[illegible]

ABSORPTION COEFFICIENT, OF HEATED AIR (INVERSE CM.)

PROTON	Q2	Q1	Q0	Q-1	Q-2	Q-3	Q-4	Q-5	Q-6	Q-7	Q-8	Q-9	Q-10	Q-11	Q-12	Q-13	Q-14	Q-15	Q-16	Q-17	Q-18	Q-19	Q-20	Q-21	Q-22	Q-23	Q-24	Q-25	Q-26	Q-27	Q-28	Q-29	Q-30	Q-31	Q-32	Q-33	Q-34	Q-35	Q-36	Q-37	Q-38	Q-39	Q-40	Q-41	Q-42	Q-43	Q-44	Q-45	Q-46	Q-47	Q-48	Q-49	Q-50	Q-51	Q-52	Q-53	Q-54	Q-55	Q-56	Q-57	Q-58	Q-59	Q-60	Q-61	Q-62	Q-63	Q-64	Q-65	Q-66	Q-67	Q-68	Q-69	Q-70	Q-71	Q-72	Q-73	Q-74	Q-75	Q-76	Q-77	Q-78	Q-79	Q-80	Q-81	Q-82	Q-83	Q-84	Q-85	Q-86	Q-87	Q-88	Q-89	Q-90	Q-91	Q-92	Q-93	Q-94	Q-95	Q-96	Q-97	Q-98	Q-99	Q-100	Q-101	Q-102	Q-103	Q-104	Q-105	Q-106	Q-107	Q-108	Q-109	Q-110	Q-111	Q-112	Q-113	Q-114	Q-115	Q-116	Q-117	Q-118	Q-119	Q-120	Q-121	Q-122	Q-123	Q-124	Q-125	Q-126	Q-127	Q-128	Q-129	Q-130	Q-131	Q-132	Q-133	Q-134	Q-135	Q-136	Q-137	Q-138	Q-139	Q-140	Q-141	Q-142	Q-143	Q-144	Q-145	Q-146	Q-147	Q-148	Q-149	Q-150	Q-151	Q-152	Q-153	Q-154	Q-155	Q-156	Q-157	Q-158	Q-159	Q-160	Q-161	Q-162	Q-163	Q-164	Q-165	Q-166	Q-167	Q-168	Q-169	Q-170	Q-171	Q-172	Q-173	Q-174	Q-175	Q-176	Q-177	Q-178	Q-179	Q-180	Q-181	Q-182	Q-183	Q-184	Q-185	Q-186	Q-187	Q-188	Q-189	Q-190	Q-191	Q-192	Q-193	Q-194	Q-195	Q-196	Q-197	Q-198	Q-199	Q-200	Q-201	Q-202	Q-203	Q-204	Q-205	Q-206	Q-207	Q-208	Q-209	Q-210	Q-211	Q-212	Q-213	Q-214	Q-215	Q-216	Q-217	Q-218	Q-219	Q-220	Q-221	Q-222	Q-223	Q-224	Q-225	Q-226	Q-227	Q-228	Q-229	Q-230	Q-231	Q-232	Q-233	Q-234	Q-235	Q-236	Q-237	Q-238	Q-239	Q-240	Q-241	Q-242	Q-243	Q-244	Q-245	Q-246	Q-247	Q-248	Q-249	Q-250	Q-251	Q-252	Q-253	Q-254	Q-255	Q-256	Q-257	Q-258	Q-259	Q-260	Q-261	Q-262	Q-263	Q-264	Q-265	Q-266	Q-267	Q-268	Q-269	Q-270	Q-271	Q-272	Q-273	Q-274	Q-275	Q-276	Q-277	Q-278	Q-279	Q-280	Q-281	Q-282	Q-283	Q-284	Q-285	Q-286	Q-287	Q-288	Q-289	Q-290	Q-291	Q-292	Q-293	Q-294	Q-295	Q-296	Q-297	Q-298	Q-299	Q-300	Q-301	Q-302	Q-303	Q-304	Q-305	Q-306	Q-307	Q-308	Q-309	Q-310	Q-311	Q-312	Q-313	Q-314	Q-315	Q-316	Q-317	Q-318	Q-319	Q-320	Q-321	Q-322	Q-323	Q-324	Q-325	Q-326	Q-327	Q-328	Q-329	Q-330	Q-331	Q-332	Q-333	Q-334	Q-335	Q-336	Q-337	Q-338	Q-339	Q-340	Q-341	Q-342	Q-343	Q-344	Q-345	Q-346	Q-347	Q-348	Q-349	Q-350	Q-351	Q-352	Q-353	Q-354	Q-355	Q-356	Q-357	Q-358	Q-359	Q-360	Q-361	Q-362	Q-363	Q-364	Q-365	Q-366	Q-367	Q-368	Q-369	Q-370	Q-371	Q-372	Q-373	Q-374	Q-375	Q-376	Q-377	Q-378	Q-379	Q-380	Q-381	Q-382	Q-383	Q-384	Q-385	Q-386	Q-387	Q-388	Q-389	Q-390	Q-391	Q-392	Q-393	Q-394	Q-395	Q-396	Q-397	Q-398	Q-399	Q-400	Q-401	Q-402	Q-403	Q-404	Q-405	Q-406	Q-407	Q-408	Q-409	Q-410	Q-411	Q-412	Q-413	Q-414	Q-415	Q-416	Q-417	Q-418	Q-419	Q-420	Q-421	Q-422	Q-423	Q-424	Q-425	Q-426	Q-427	Q-428	Q-429	Q-430	Q-431	Q-432	Q-433	Q-434	Q-435	Q-436	Q-437	Q-438	Q-439	Q-440	Q-441	Q-442	Q-443	Q-444	Q-445	Q-446	Q-447	Q-448	Q-449	Q-450	Q-451	Q-452	Q-453	Q-454	Q-455	Q-456	Q-457	Q-458	Q-459	Q-460	Q-461	Q-462	Q-463	Q-464	Q-465	Q-466	Q-467	Q-468	Q-469	Q-470	Q-471	Q-472	Q-473	Q-474	Q-475	Q-476	Q-477	Q-478	Q-479	Q-480	Q-481	Q-482	Q-483	Q-484	Q-485	Q-486	Q-487	Q-488	Q-489	Q-490	Q-491	Q-492	Q-493	Q-494	Q-495	Q-496	Q-497	Q-498	Q-499	Q-500	Q-501	Q-502	Q-503	Q-504	Q-505	Q-506	Q-507	Q-508	Q-509	Q-510	Q-511	Q-512	Q-513	Q-514	Q-515	Q-516	Q-517	Q-518	Q-519	Q-520	Q-521	Q-522	Q-523	Q-524	Q-525	Q-526	Q-527	Q-528	Q-529	Q-530	Q-531	Q-532	Q-533	Q-534	Q-535	Q-536	Q-537	Q-538	Q-539	Q-540	Q-541	Q-542	Q-543	Q-544	Q-545	Q-546	Q-547	Q-548	Q-549	Q-550	Q-551	Q-552	Q-553	Q-554	Q-555	Q-556	Q-557	Q-558	Q-559	Q-560	Q-561	Q-562	Q-563	Q-564	Q-565	Q-566	Q-567	Q-568	Q-569	Q-570	Q-571	Q-572	Q-573	Q-574	Q-575	Q-576	Q-577	Q-578	Q-579	Q-580	Q-581	Q-582	Q-583	Q-584	Q-585	Q-586	Q-587	Q-588	Q-589	Q-590	Q-591	Q-592	Q-593	Q-594	Q-595	Q-596	Q-597	Q-598	Q-599	Q-600	Q-601	Q-602	Q-603	Q-604	Q-605	Q-606	Q-607	Q-608	Q-609	Q-610	Q-611	Q-612	Q-613	Q-614	Q-615	Q-616	Q-617	Q-618	Q-619	Q-620	Q-621	Q-622	Q-623	Q-624	Q-625	Q-626	Q-627	Q-628	Q-629	Q-630	Q-631	Q-632	Q-633	Q-634	Q-635	Q-636	Q-637	Q-638	Q-639	Q-640	Q-641	Q-642	Q-643	Q-644	Q-645	Q-646	Q-647	Q-648	Q-649	Q-650	Q-651	Q-652	Q-653	Q-654	Q-655	Q-656	Q-657	Q-658	Q-659	Q-660	Q-661	Q-662	Q-663	Q-664	Q-665	Q-666	Q-667	Q-668	Q-669	Q-670	Q-671	Q-672	Q-673	Q-674	Q-675	Q-676	Q-677	Q-678	Q-679	Q-680	Q-681	Q-682	Q-683	Q-684	Q-685	Q-686	Q-687	Q-688	Q-689	Q-690	Q-691	Q-692	Q-693	Q-694	Q-695	Q-696	Q-697	Q-698	Q-699	Q-700	Q-701	Q-702	Q-703	Q-704	Q-705	Q-706	Q-707	Q-708	Q-709	Q-710	Q-711	Q-712	Q-713	Q-714	Q-715	Q-716	Q-717	Q-718	Q-719	Q-720	Q-721	Q-722	Q-723	Q-724	Q-725	Q-726	Q-727	Q-728	Q-729	Q-730	Q-731	Q-732	Q-733	Q-734	Q-735	Q-736	Q-737	Q-738	Q-739	Q-740	Q-741	Q-742	Q-743	Q-744	Q-745	Q-746	Q-747	Q-748	Q-749	Q-750	Q-751	Q-752	Q-753	Q-754	Q-755	Q-756	Q-757	Q-758	Q-759	Q-760	Q-761	Q-762	Q-763	Q-764	Q-765	Q-766	Q-767	Q-768	Q-769	Q-770	Q-771	Q-772	Q-773	Q-774	Q-775	Q-776	Q-777	Q-778	Q-779	Q-780	Q-781	Q-782	Q-783	Q-784	Q-785	Q-786	Q-787	Q-788	Q-789	Q-790	Q-791	Q-792	Q-793	Q-794	Q-795	Q-796	Q-797	Q-798	Q-799	Q-800	Q-801	Q-802	Q-803	Q-804	Q-805	Q-806	Q-807	Q-808	Q-809	Q-810	Q-811	Q-812	Q-813	Q-814	Q-815	Q-816	Q-817	Q-818	Q-819	Q-820	Q-821	Q-822	Q-823	Q-824	Q-825	Q-826	Q-827	Q-828	Q-829	Q-830	Q-831	Q-832	Q-833	Q-834	Q-835	Q-836	Q-837	Q-838	Q-839	Q-840	Q-841	Q-842	Q-843	Q-844	Q-845	Q-846	Q-847	Q-848	Q-849	Q-850	Q-851	Q-852	Q-853	Q-854	Q-855	Q-856	Q-857	Q-858	Q-859	Q-860	Q-861	Q-862	Q-863	Q-864	Q-865	Q-866	Q-867	Q-868	Q-869	Q-870	Q-871	Q-872	Q-873	Q-874	Q-875	Q-876	Q-877	Q-878	Q-879	Q-880	Q-881	Q-882	Q-883	Q-884	Q-885	Q-886	Q-887	Q-888	Q-889	Q-890	Q-891	Q-892	Q-893	Q-894	Q-895	Q-896	Q-897	Q-898	Q-899	Q-900	Q-901	Q-902	Q-903	Q-904	Q-905	Q-906	Q-907	Q-908	Q-909	Q-910	Q-911	Q-912	Q-913	Q-914	Q-915	Q-916	Q-917	Q-918	Q-919	Q-920	Q-921	Q-922	Q-923	Q-924	Q-925	Q-926	Q-927	Q-928	Q-929	Q-930	Q-931	Q-932	Q-933	Q-934	Q-935	Q-936	Q-937	Q-938	Q-939	Q-940	Q-941	Q-942	Q-943	Q-944	Q-945	Q-946	Q-947	Q-948	Q-949	Q-950	Q-951	Q-952	Q-953	Q-954	Q-955	Q-956	Q-957	Q-958	Q-959	Q-960	Q-961	Q-962	Q-963	Q-964	Q-965	Q-966	Q-967	Q-968	Q-969	Q-970	Q-971	Q-972	Q-973	Q-974	Q-975	Q-976	Q-977	Q-978	Q-979	Q-980	Q-981	Q-982	Q-983	Q-984	Q-985	Q-986	Q-987	Q-988	Q-989	Q-990	Q-991	Q-992	Q-993	Q-994	Q-995	Q-996	Q-997	Q-998	Q-999	Q-1000
NO	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)
TEMPERATURE (DEGREES K) 21000, DENSITY (GM/CC) 1.293E-07 (10.0E-05 NORMAL)

PHOTON 02 S-R ENERGY BANDS	1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	BETA	GAMMA	NO VIB-ROT	NO 2	0- PHOTO-DET (IONS)	FREQ-FREE P.E.	N P.E.	0 P.E.	TOTAL AIR
52	5.00	3.35E-27	0.	0.	3.18E-19	2.05E-18	0.	0.	0.35E-12	4.47E-08	2.12E-07	7.94E-08	3.36E-07
53	5.50	0.	0.	0.	3.09E-19	1.80E-18	0.	0.	0.40E-12	4.73E-08	2.21E-07	8.04E-08	3.49E-07
54	5.00	0.	0.	0.	3.04E-19	1.50E-18	0.	0.	0.44E-12	5.00E-08	2.31E-07	8.17E-08	3.63E-07
55	5.50	0.	0.	0.	3.73E-19	1.90E-18	0.	0.	0.50E-12	5.20E-08	2.42E-07	8.31E-08	3.78E-07
56	5.00	0.	0.	0.	4.04E-19	1.50E-18	0.	0.	0.55E-12	5.60E-08	2.52E-07	8.47E-08	3.93E-07
57	5.50	0.	0.	0.	4.94E-19	1.90E-18	0.	0.	0.62E-12	5.94E-08	2.63E-07	8.63E-08	4.09E-07
58	5.00	4.71E-28	6.	3.	3.73E-19	1.80E-18	0.	0.	0.70E-12	6.31E-08	2.74E-07	8.79E-08	4.25E-07
59	4.90	1.14E-19	0.	0.	4.04E-19	2.05E-18	0.	0.	0.77E-12	6.71E-08	2.84E-07	8.95E-08	4.41E-07
60	4.00	2.21E-19	0.	0.	4.52E-19	1.90E-18	0.	0.	0.84E-12	7.14E-08	2.94E-07	9.10E-08	4.59E-07
61	4.70	3.02E-19	0.	0.	4.56E-19	1.70E-18	0.	0.	0.91E-12	7.61E-08	3.14E-07	9.23E-08	4.82E-07
62	4.00	2.21E-19	0.	0.	4.72E-19	1.62E-18	0.	0.	0.96E-12	8.13E-08	3.34E-07	9.50E-08	5.13E-07
63	4.50	4.40E-19	0.	4.30E-19	4.37E-19	1.23E-18	0.	0.	0.90E-12	8.09E-08	3.55E-07	9.70E-08	5.40E-07
64	4.00	4.64E-19	0.	1.29E-18	4.11E-19	0.39E-19	0.	0.	0.14E-12	9.30E-08	3.77E-07	1.01E-07	5.78E-07
65	4.50	4.63E-19	0.	4.30E-18	4.24E-19	3.31E-19	0.	0.	0.20E-12	9.97E-08	3.99E-07	1.01E-07	6.00E-07
66	4.20	4.36E-19	0.	1.32E-17	4.50E-19	3.03E-19	0.	0.	0.27E-12	1.07E-07	4.24E-07	1.02E-07	6.21E-07
67	4.10	4.13E-19	0.	6.13E-18	4.55E-19	3.03E-19	0.	0.	0.31E-12	1.15E-07	4.50E-07	1.05E-07	6.21E-07
68	4.00	3.04E-19	0.	1.92E-17	4.33E-19	7.71E-20	0.	0.	0.35E-12	1.24E-07	4.61E-07	1.01E-07	6.43E-07
69	3.90	3.31E-19	0.	9.14E-18	4.04E-19	2.80E-20	0.	0.	0.31E-12	1.34E-07	4.53E-07	9.90E-08	6.47E-07
70	3.00	3.65E-19	0.	1.40E-17	4.09E-19	0.	0.	0.	0.27E-12	1.45E-07	4.70E-07	6.27E-08	6.64E-07
71	3.70	3.30E-19	0.	1.50E-17	3.22E-19	0.	0.	0.	0.13E-12	1.57E-07	4.97E-07	6.61E-08	7.22E-07
72	3.00	3.00E-19	0.	1.11E-17	7.70E-14	4.13E-19	0.	0.	0.55E-12	1.71E-07	5.27E-07	7.40E-08	7.71E-07
73	3.70	2.84E-19	0.	1.44E-17	1.30E-13	3.32E-19	0.	0.	0.83E-12	1.66E-07	5.01E-07	8.07E-08	8.20E-07
74	3.40	2.64E-19	0.	9.40E-18	2.33E-14	3.75E-19	0.	0.	0.51E-12	2.03E-07	6.01E-07	6.43E-08	8.93E-07
75	3.30	2.13E-19	0.	9.67E-18	0.49E-14	3.84E-19	0.	0.	0.52E-12	2.23E-07	6.41E-07	9.60E-08	9.50E-07
76	3.20	1.00E-19	0.	6.40E-18	1.32E-13	3.22E-19	0.	0.	0.53E-12	2.52E-07	3.77E-07	1.03E-07	7.24E-07
77	3.10	1.02E-19	0.	5.00E-18	3.70E-14	3.00E-19	0.	0.	0.54E-12	2.69E-07	4.04E-07	1.11E-07	7.04E-07
78	3.00	1.65E-19	0.	3.15E-18	0.63E-14	2.95E-19	0.	0.	0.54E-12	2.90E-07	4.44E-07	1.20E-07	8.01E-07
79	2.90	1.41E-19	0.	2.80E-18	4.34E-14	2.30E-19	0.	0.	0.54E-12	3.30E-07	4.89E-07	1.24E-07	9.40E-07
80	2.80	1.49E-19	0.	9.64E-19	3.92E-14	1.64E-19	0.	0.	0.54E-12	3.67E-07	5.31E-07	1.31E-07	1.03E-06
81	2.70	9.70E-20	0.	4.54E-19	3.78E-14	9.22E-20	0.	0.	0.54E-12	4.10E-07	5.76E-07	1.21E-07	1.11E-06
82	2.60	4.73E-20	0.	2.10E-19	3.99E-15	4.16E-20	0.	0.	0.54E-12	4.60E-07	6.24E-07	8.60E-08	1.17E-06
83	2.50	3.34E-21	0.	2.24E-20	3.91E-15	1.01E-20	0.	0.	0.54E-12	5.19E-07	6.82E-07	1.00E-07	1.23E-06
84	2.40	0.	0.	9.09E-19	2.95E-15	1.09E-21	0.	0.	0.54E-12	5.64E-07	7.40E-07	1.43E-07	1.41E-06
85	2.30	0.	0.	2.07E-18	0.	0.	0.	0.	0.54E-12	6.05E-07	8.01E-07	1.43E-07	1.41E-06
86	2.20	0.	0.	7.75E-18	0.	0.	0.	0.	0.54E-12	6.40E-07	8.64E-07	1.43E-07	1.41E-06
87	2.10	0.	0.	7.03E-18	0.	0.	0.	0.	0.54E-12	6.69E-07	9.04E-07	1.43E-07	1.41E-06
88	2.00	0.	0.	1.57E-17	0.	0.	0.	0.	0.54E-12	6.95E-07	9.44E-07	1.43E-07	1.41E-06
89	1.90	0.	0.	1.04E-17	0.	0.	0.	0.	0.54E-12	7.18E-07	9.84E-07	1.43E-07	1.41E-06
90	1.80	0.	0.	1.00E-17	0.	0.	0.	0.	0.54E-12	7.37E-07	1.02E-07	1.43E-07	1.41E-06
91	1.70	0.	0.	1.01E-17	0.	0.	0.	0.	0.54E-12	7.52E-07	1.04E-07	1.43E-07	1.41E-06
92	1.60	0.	0.	1.37E-17	0.	0.	0.	0.	0.54E-12	7.64E-07	1.06E-07	1.43E-07	1.41E-06
93	1.50	0.	0.	1.55E-17	0.	0.	0.	0.	0.54E-12	7.74E-07	1.07E-07	1.43E-07	1.41E-06
94	1.40	0.	0.	1.53E-17	0.	0.	0.	0.	0.54E-12	7.82E-07	1.08E-07	1.43E-07	1.41E-06
95	1.30	0.	0.	1.17E-17	0.	0.	0.	0.	0.54E-12	7.88E-07	1.08E-07	1.43E-07	1.41E-06
96	1.20	0.	0.	1.12E-17	0.	0.	0.	0.	0.54E-12	7.92E-07	1.08E-07	1.43E-07	1.41E-06
97	1.10	0.	0.	1.00E-17	0.	0.	0.	0.	0.54E-12	7.94E-07	1.08E-07	1.43E-07	1.41E-06
98	1.00	0.	0.	9.04E-18	0.	0.	0.	0.	0.54E-12	7.95E-07	1.08E-07	1.43E-07	1.41E-06
99	0.90	0.	0.	8.17E-18	0.	0.	0.	0.	0.54E-12	7.95E-07	1.08E-07	1.43E-07	1.41E-06
100	0.80	0.	0.	3.85E-18	0.	0.	0.	0.	0.54E-12	7.95E-07	1.08E-07	1.43E-07	1.41E-06
101	0.70	0.	0.	6.05E-19	0.	0.	0.	0.	0.54E-12	7.95E-07	1.08E-07	1.43E-07	1.41E-06
102	0.60	0.	0.	1.04E-19	0.	0.	0.	0.	0.54E-12	7.95E-07	1.08E-07	1.43E-07	1.41E-06

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.) TEMPERATURE (INVERSE X) 11000. DENSITY (GM/CC) 1.2935-00 (1.98-00 NORMAL)

PHOTON OR S-W ENERGY BANDS E.V.	OR S-W CONT.	NO. 1	DATA	WAVELENGTH	W	0- PHOTO-BET (IONS)	0- FREE-ELECT	M	P.E.	0 TOTAL AIR
1 10.70 0.	0.	1.00E-21	2.	0.	1.17E-14	1.39E-12	1.37E-00	1.50E-09	1.50E-09	1.50E-09
2 10.00 0.	0.	1.70E-21	0.	0.	1.17E-14	1.45E-10	1.30E-00	1.50E-09	1.50E-09	1.50E-09
3 10.50 0.	0.	1.70E-21	0.	0.	1.17E-14	1.47E-10	1.30E-00	1.50E-09	1.50E-09	1.50E-09
4 10.40 0.	0.	2.00E-21	0.	0.	1.17E-14	1.47E-10	1.30E-00	1.50E-09	1.50E-09	1.50E-09
5 10.30 0.	0.	1.00E-21	0.	0.	1.17E-14	1.50E-10	1.30E-00	1.50E-09	1.50E-09	1.50E-09
6 10.20 0.	0.	1.50E-21	0.	0.	1.18E-14	1.61E-10	1.40E-00	1.50E-09	1.50E-09	1.50E-09
7 10.10 0.	0.	1.00E-21	0.	0.	1.18E-14	1.60E-10	1.40E-00	1.50E-09	1.50E-09	1.50E-09
8 10.00 0.	0.	1.30E-21	0.	0.	1.18E-14	1.71E-10	1.40E-00	1.50E-09	1.50E-09	1.50E-09
9 9.90 0.	0.	1.30E-21	0.	0.	1.18E-14	1.70E-10	1.40E-00	1.50E-09	1.50E-09	1.50E-09
10 9.80 0.	0.	1.20E-21	0.	0.	1.18E-14	1.81E-10	1.50E-00	1.60E-09	1.60E-09	1.60E-09
11 9.70 0.	0.	1.10E-21	0.	0.	1.19E-14	1.92E-10	1.50E-00	1.60E-09	1.60E-09	1.60E-09
12 9.60 0.	0.	1.20E-21	0.	0.	1.19E-14	1.90E-10	1.50E-00	1.60E-09	1.60E-09	1.60E-09
13 9.50 0.	0.	1.00E-21	0.	0.	1.19E-14	2.00E-10	1.60E-00	1.60E-09	1.60E-09	1.60E-09
14 9.40 0.	0.	1.00E-21	0.	0.	1.20E-14	2.13E-10	1.60E-00	1.60E-09	1.60E-09	1.60E-09
15 9.30 0.	0.	1.00E-21	0.	0.	1.20E-14	2.20E-10	1.60E-00	1.60E-09	1.60E-09	1.60E-09
16 9.20 0.	0.	0.80E-22	0.	0.	1.21E-14	2.27E-10	1.60E-00	1.60E-09	1.60E-09	1.60E-09
17 9.10 0.	0.	0.10E-22	0.	0.	1.21E-14	2.35E-10	1.60E-00	1.60E-09	1.60E-09	1.60E-09
18 9.00 0.	0.	0.40E-22	0.	0.	1.22E-14	2.43E-10	1.60E-00	1.60E-09	1.60E-09	1.60E-09
19 8.90 0.	0.	7.00E-22	0.	0.	1.22E-14	2.43E-10	1.60E-00	1.60E-09	1.60E-09	1.60E-09
20 8.80 0.	0.	7.00E-22	0.	0.	1.22E-14	2.51E-10	1.60E-00	1.60E-09	1.60E-09	1.60E-09
21 8.70 0.	0.	6.87E-22	0.	0.	1.23E-14	2.60E-10	1.60E-00	1.60E-09	1.60E-09	1.60E-09
22 8.60 0.	0.	7.10E-22	0.	0.	1.23E-14	2.69E-10	1.60E-00	1.60E-09	1.60E-09	1.60E-09
23 8.50 0.	0.	6.30E-22	0.	0.	1.23E-14	2.79E-10	1.70E-00	1.60E-09	1.60E-09	1.60E-09
24 8.40 0.	0.	6.30E-22	0.	0.	1.24E-14	2.89E-10	1.70E-00	1.60E-09	1.60E-09	1.60E-09
25 8.30 0.	0.	5.47E-22	0.	0.	1.25E-14	3.00E-10	1.80E-00	1.60E-09	1.60E-09	1.60E-09
26 8.20 0.	0.	5.57E-22	0.	0.	1.25E-14	3.11E-10	1.80E-00	1.60E-09	1.60E-09	1.60E-09
27 8.10 0.	0.	4.80E-22	0.	0.	1.26E-14	3.23E-10	1.80E-00	1.60E-09	1.60E-09	1.60E-09
28 8.00 0.	0.	4.90E-22	0.	0.	1.27E-14	3.35E-10	1.80E-00	1.60E-09	1.60E-09	1.60E-09
29 7.90 0.	0.	4.30E-22	0.	0.	1.27E-14	3.40E-10	1.80E-00	1.60E-09	1.60E-09	1.60E-09
30 7.80 0.	0.	4.50E-22	0.	0.	1.28E-14	3.61E-10	1.80E-00	1.60E-09	1.60E-09	1.60E-09
31 7.70 0.	0.	4.00E-22	0.	0.	1.28E-14	3.70E-10	1.80E-00	1.60E-09	1.60E-09	1.60E-09
32 7.60 0.	0.	3.80E-22	0.	4.12E-24	1.29E-14	3.91E-10	1.80E-00	1.52E-09	1.52E-09	1.52E-09
33 7.50 0.	0.	3.40E-22	0.	1.1E-24	1.30E-14	4.07E-10	1.80E-00	1.55E-09	1.55E-09	1.55E-09
34 7.40 0.	0.	3.20E-22	0.	1.1E-24	1.31E-14	4.24E-10	1.80E-00	1.50E-09	1.50E-09	1.50E-09
35 7.30 0.	0.	3.10E-22	0.	4.51E-24	1.31E-14	4.41E-10	1.80E-00	1.61E-09	1.61E-09	1.61E-09
36 7.20 0.	0.	2.80E-22	0.	1.20E-23	1.32E-14	4.60E-10	1.80E-00	1.50E-09	1.50E-09	1.50E-09
37 7.10 0.	0.	2.80E-22	0.	3.97E-23	1.32E-14	4.80E-10	1.80E-00	1.70E-09	1.70E-09	1.70E-09
38 7.00 0.	0.	2.40E-22	0.	7.90E-23	1.34E-14	5.01E-10	1.80E-00	1.75E-09	1.75E-09	1.75E-09
39 6.90 0.	0.	2.40E-22	0.	1.1E-22	1.35E-14	5.23E-10	1.80E-00	1.70E-09	1.70E-09	1.70E-09
40 6.80 0.	0.	2.30E-22	0.	1.0E-22	1.36E-14	5.47E-10	1.80E-00	1.80E-09	1.80E-09	1.80E-09
41 6.70 0.	0.	2.00E-22	0.	1.70E-22	1.37E-14	5.72E-10	1.80E-00	1.80E-09	1.80E-09	1.80E-09
42 6.60 0.	0.	1.90E-22	0.	1.90E-22	1.39E-14	5.99E-10	1.80E-00	1.94E-09	1.94E-09	1.94E-09
43 6.50 0.	0.	1.50E-22	0.	2.40E-22	1.40E-14	6.20E-10	1.80E-00	1.99E-09	1.99E-09	1.99E-09
44 6.40 0.	0.	1.00E-22	0.	6.75E-23	1.41E-14	6.50E-10	1.80E-00	2.04E-09	2.04E-09	2.04E-09
45 6.30 0.	0.	0.90E-23	0.	3.20E-24	1.42E-14	7.22E-10	1.80E-00	2.09E-09	2.09E-09	2.09E-09
46 6.20 0.	0.	3.00E-23	0.	4.60E-24	1.43E-14	7.59E-10	1.80E-00	2.15E-09	2.15E-09	2.15E-09
47 6.10 0.	0.	1.80E-23	0.	1.34E-23	1.44E-14	7.97E-10	1.80E-00	2.21E-09	2.21E-09	2.21E-09
48 6.00 0.	0.	4.00E-24	0.	1.31E-23	1.45E-14	8.35E-10	1.80E-00	2.26E-09	2.26E-09	2.26E-09
49 5.90 0.	0.	3.40E-24	0.	1.94E-23	1.45E-14	8.70E-10	1.80E-00	2.27E-09	2.27E-09	2.27E-09
50 5.80 0.	0.	0.81E-27	0.	7.30E-23	1.45E-14	9.05E-10	1.80E-00	2.29E-09	2.29E-09	2.29E-09
51 5.70 0.	0.	0.00E-30	0.	3.35E-23	1.45E-14	9.31E-10	1.80E-00	2.31E-09	2.31E-09	2.31E-09

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.263E-00 (1.0E-05 NORMAL)		O- PHOTO-DET (IONS)		FREE-ELECT P.E.		TOTAL AIR	
PHOTON ENERGY BANDS	Q2 3-4	Q2 1ST POS.	Q2 2ND POS.	Q2 1ST NEG.	Q2 2ND NEG.	Q2 1ST POS.	Q2 2ND POS.	Q2 1ST NEG.	Q2 2ND NEG.	Q2 1ST POS.	Q2 2ND POS.
52	5.00	4.53E-31	0.	0.	0.	2.83E-23	1.99E-22	0.	0.	1.29E-14	0.83E-10
53	5.00	0.	0.	0.	0.	3.48E-23	1.49E-22	0.	0.	1.29E-14	1.04E-09
54	5.00	0.	0.	0.	0.	3.48E-23	1.49E-22	0.	0.	1.29E-14	1.04E-09
55	5.30	0.	0.	0.	0.	3.51E-23	1.74E-22	0.	0.	1.27E-14	1.16E-09
56	5.30	0.	0.	0.	0.	3.60E-23	1.37E-22	0.	0.	1.26E-14	1.23E-09
57	5.10	0.	0.	0.	0.	3.60E-23	1.79E-22	0.	0.	1.29E-14	1.30E-09
58	5.00	3.7E-24	0.	0.	0.	3.32E-23	1.87E-22	0.	0.	1.30E-14	1.30E-09
59	4.90	1.57E-23	0.	0.	0.	3.72E-23	1.89E-22	0.	0.	1.31E-14	1.47E-09
60	4.80	2.90E-23	0.	0.	0.	4.02E-23	1.74E-22	0.	0.	1.32E-14	1.57E-09
61	4.70	4.03E-23	0.	0.	0.	4.00E-23	1.99E-22	0.	0.	1.33E-14	1.67E-09
62	4.60	5.70E-23	0.	0.	0.	4.20E-23	1.46E-22	0.	0.	1.34E-14	1.78E-09
63	4.50	6.85E-23	0.	0.	0.	4.20E-23	1.06E-22	0.	0.	1.35E-14	1.90E-09
64	4.40	6.51E-23	0.	0.	0.	3.93E-23	7.43E-23	0.	0.	1.36E-14	2.04E-09
65	4.30	6.29E-23	0.	0.	0.	3.79E-23	4.79E-23	0.	0.	1.37E-14	2.19E-09
66	4.20	5.80E-23	0.	0.	0.	4.00E-23	3.29E-23	0.	0.	1.38E-14	2.35E-09
67	4.10	5.50E-23	0.	0.	0.	3.90E-23	9.17E-24	0.	0.	1.39E-14	2.52E-09
68	4.00	5.20E-23	0.	0.	0.	3.61E-23	2.59E-24	0.	0.	1.40E-14	2.72E-09
69	3.90	4.47E-23	0.	0.	0.	3.40E-23	0.	0.	0.	1.41E-14	2.94E-09
70	3.80	4.91E-23	0.	0.	0.	3.40E-23	0.	0.	0.	1.42E-14	3.17E-09
71	3.70	4.41E-23	0.	0.	0.	3.40E-23	0.	0.	0.	1.43E-14	3.41E-09
72	3.60	4.00E-23	0.	0.	0.	3.40E-23	0.	0.	0.	1.44E-14	3.66E-09
73	3.50	3.80E-23	0.	0.	0.	3.40E-23	0.	0.	0.	1.45E-14	3.92E-09
74	3.40	3.57E-23	0.	0.	0.	3.40E-23	0.	0.	0.	1.46E-14	4.19E-09
75	3.30	2.97E-23	0.	0.	0.	3.40E-23	0.	0.	0.	1.47E-14	4.47E-09
76	3.20	2.94E-23	0.	0.	0.	3.40E-23	0.	0.	0.	1.48E-14	4.76E-09
77	3.10	2.40E-23	0.	0.	0.	3.40E-23	0.	0.	0.	1.49E-14	5.06E-09
78	3.00	2.24E-23	0.	0.	0.	3.40E-23	0.	0.	0.	1.50E-14	5.37E-09
79	2.90	1.91E-23	0.	0.	0.	3.40E-23	0.	0.	0.	1.51E-14	5.69E-09
80	2.80	2.01E-23	0.	0.	0.	3.40E-23	0.	0.	0.	1.52E-14	6.02E-09
81	2.70	1.32E-22	0.	0.	0.	3.40E-23	0.	0.	0.	1.53E-14	6.36E-09
82	2.60	0.41E-24	0.	0.	0.	3.40E-23	0.	0.	0.	1.54E-14	6.71E-09
83	2.50	0.54E-25	0.	0.	0.	3.40E-23	0.	0.	0.	1.55E-14	7.07E-09
84	2.40	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.56E-14	7.44E-09
85	2.30	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.57E-14	7.82E-09
86	2.20	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.58E-14	8.21E-09
87	2.10	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.59E-14	8.61E-09
88	2.00	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.60E-14	9.02E-09
89	1.90	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.61E-14	9.44E-09
90	1.80	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.62E-14	9.87E-09
91	1.70	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.63E-14	1.03E-08
92	1.60	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.64E-14	1.08E-08
93	1.50	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.65E-14	1.14E-08
94	1.40	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.66E-14	1.20E-08
95	1.30	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.67E-14	1.26E-08
96	1.20	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.68E-14	1.33E-08
97	1.10	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.69E-14	1.40E-08
98	1.00	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.70E-14	1.47E-08
99	0.90	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.71E-14	1.55E-08
100	0.80	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.72E-14	1.63E-08
101	0.70	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.73E-14	1.71E-08
102	0.60	0.	0.	0.	0.	3.40E-23	0.	0.	0.	1.74E-14	1.80E-08

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

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PHOTON QZ 3-4 ENERGY BANDS	M2 1ST POS.	M2 2ND POS.	M2 3RD POS.	M2 4TH POS.	M2 5TH POS.	M2 6TH POS.	M2 7TH POS.	M2 8TH POS.	M2 9TH POS.	M2 10TH POS.	M2 11TH POS.	M2 12TH POS.	M2 13TH POS.	M2 14TH POS.	M2 15TH POS.	M2 16TH POS.	M2 17TH POS.	M2 18TH POS.	M2 19TH POS.	M2 20TH POS.	M2 21TH POS.	M2 22TH POS.	M2 23TH POS.	M2 24TH POS.	M2 25TH POS.	M2 26TH POS.	M2 27TH POS.	M2 28TH POS.	M2 29TH POS.	M2 30TH POS.	M2 31TH POS.	M2 32TH POS.	M2 33TH POS.	M2 34TH POS.	M2 35TH POS.	M2 36TH POS.	M2 37TH POS.	M2 38TH POS.	M2 39TH POS.	M2 40TH POS.	M2 41TH POS.	M2 42TH POS.	M2 43TH POS.	M2 44TH POS.	M2 45TH POS.	M2 46TH POS.	M2 47TH POS.	M2 48TH POS.	M2 49TH POS.	M2 50TH POS.	M2 51TH POS.	M2 52TH POS.	M2 53TH POS.	M2 54TH POS.	M2 55TH POS.	M2 56TH POS.	M2 57TH POS.	M2 58TH POS.	M2 59TH POS.	M2 60TH POS.	M2 61TH POS.	M2 62TH POS.	M2 63TH POS.	M2 64TH POS.	M2 65TH POS.	M2 66TH POS.	M2 67TH POS.	M2 68TH POS.	M2 69TH POS.	M2 70TH POS.	M2 71TH POS.	M2 72TH POS.	M2 73TH POS.	M2 74TH POS.	M2 75TH POS.	M2 76TH POS.	M2 77TH POS.	M2 78TH POS.	M2 79TH POS.	M2 80TH POS.	M2 81TH POS.	M2 82TH POS.	M2 83TH POS.	M2 84TH POS.	M2 85TH POS.	M2 86TH POS.	M2 87TH POS.	M2 88TH POS.	M2 89TH POS.	M2 90TH POS.	M2 91TH POS.	M2 92TH POS.	M2 93TH POS.	M2 94TH POS.	M2 95TH POS.	M2 96TH POS.	M2 97TH POS.	M2 98TH POS.	M2 99TH POS.	M2 100TH POS.	M2 101TH POS.	M2 102TH POS.	M2 103TH POS.	M2 104TH POS.	M2 105TH POS.	M2 106TH POS.	M2 107TH POS.	M2 108TH POS.	M2 109TH POS.	M2 110TH POS.	M2 111TH POS.	M2 112TH POS.	M2 113TH POS.	M2 114TH POS.	M2 115TH POS.	M2 116TH POS.	M2 117TH POS.	M2 118TH POS.	M2 119TH POS.	M2 120TH POS.	M2 121TH POS.	M2 122TH POS.	M2 123TH POS.	M2 124TH POS.	M2 125TH POS.	M2 126TH POS.	M2 127TH POS.	M2 128TH POS.	M2 129TH POS.	M2 130TH POS.	M2 131TH POS.	M2 132TH POS.	M2 133TH POS.	M2 134TH POS.	M2 135TH POS.	M2 136TH POS.	M2 137TH POS.	M2 138TH POS.	M2 139TH POS.	M2 140TH POS.	M2 141TH POS.	M2 142TH POS.	M2 143TH POS.	M2 144TH POS.	M2 145TH POS.	M2 146TH POS.	M2 147TH POS.	M2 148TH POS.	M2 149TH POS.	M2 150TH POS.	M2 151TH POS.	M2 152TH POS.	M2 153TH POS.	M2 154TH POS.	M2 155TH POS.	M2 156TH POS.	M2 157TH POS.	M2 158TH POS.	M2 159TH POS.	M2 160TH POS.	M2 161TH POS.	M2 162TH POS.	M2 163TH POS.	M2 164TH POS.	M2 165TH POS.	M2 166TH POS.	M2 167TH POS.	M2 168TH POS.	M2 169TH POS.	M2 170TH POS.	M2 171TH POS.	M2 172TH POS.	M2 173TH POS.	M2 174TH POS.	M2 175TH POS.	M2 176TH POS.	M2 177TH POS.	M2 178TH POS.	M2 179TH POS.	M2 180TH POS.	M2 181TH POS.	M2 182TH POS.	M2 183TH POS.	M2 184TH POS.	M2 185TH POS.	M2 186TH POS.	M2 187TH POS.	M2 188TH POS.	M2 189TH POS.	M2 190TH POS.	M2 191TH POS.	M2 192TH POS.	M2 193TH POS.	M2 194TH POS.	M2 195TH POS.	M2 196TH POS.	M2 197TH POS.	M2 198TH POS.	M2 199TH POS.	M2 200TH POS.	M2 201TH POS.	M2 202TH POS.	M2 203TH POS.	M2 204TH POS.	M2 205TH POS.	M2 206TH POS.	M2 207TH POS.	M2 208TH POS.	M2 209TH POS.	M2 210TH POS.	M2 211TH POS.	M2 212TH POS.	M2 213TH POS.	M2 214TH POS.	M2 215TH POS.	M2 216TH POS.	M2 217TH POS.	M2 218TH POS.	M2 219TH POS.	M2 220TH POS.	M2 221TH POS.	M2 222TH POS.	M2 223TH POS.	M2 224TH POS.	M2 225TH POS.	M2 226TH POS.	M2 227TH POS.	M2 228TH POS.	M2 229TH POS.	M2 230TH POS.	M2 231TH POS.	M2 2
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0 TOTAL AIR
P.E.

POSITION	02 3-R	02 5-R	02 8-R	02 11-R	02 14-R	02 17-R	02 20-R	02 23-R	02 26-R	02 29-R	02 32-R	02 35-R	02 38-R	02 41-R	02 44-R	02 47-R	02 50-R	02 53-R	02 56-R	02 59-R	02 62-R	02 65-R	02 68-R	02 71-R	02 74-R	02 77-R	02 80-R	02 83-R	02 86-R	02 89-R	02 92-R	02 95-R	02 98-R	03 01-R	03 04-R	03 07-R	03 10-R	03 13-R	03 16-R	03 19-R	03 22-R	03 25-R	03 28-R	03 31-R	03 34-R	03 37-R	03 40-R	03 43-R	03 46-R	03 49-R	03 52-R	03 55-R	03 58-R	04 01-R	04 04-R	04 07-R	04 10-R	04 13-R	04 16-R	04 19-R	04 22-R	04 25-R	04 28-R	04 31-R	04 34-R	04 37-R	04 40-R	04 43-R	04 46-R	04 49-R	04 52-R	04 55-R	04 58-R	05 01-R	05 04-R	05 07-R	05 10-R	05 13-R	05 16-R	05 19-R	05 22-R	05 25-R	05 28-R	05 31-R	05 34-R	05 37-R	05 40-R	05 43-R	05 46-R	05 49-R	05 52-R	05 55-R	05 58-R	06 01-R	06 04-R	06 07-R	06 10-R	06 13-R	06 16-R	06 19-R	06 22-R	06 25-R	06 28-R	06 31-R	06 34-R	06 37-R	06 40-R	06 43-R	06 46-R	06 49-R	06 52-R	06 55-R	06 58-R	07 01-R	07 04-R	07 07-R	07 10-R	07 13-R	07 16-R	07 19-R	07 22-R	07 25-R	07 28-R	07 31-R	07 34-R	07 37-R	07 40-R	07 43-R	07 46-R	07 49-R	07 52-R	07 55-R	07 58-R	08 01-R	08 04-R	08 07-R	08 10-R	08 13-R	08 16-R	08 19-R	08 22-R	08 25-R	08 28-R	08 31-R	08 34-R	08 37-R	08 40-R	08 43-R	08 46-R	08 49-R	08 52-R	08 55-R	08 58-R	09 01-R	09 04-R	09 07-R	09 10-R	09 13-R	09 16-R	09 19-R	09 22-R	09 25-R	09 28-R	09 31-R	09 34-R	09 37-R	09 40-R	09 43-R	09 46-R	09 49-R	09 52-R	09 55-R	09 58-R	10 01-R	10 04-R	10 07-R	10 10-R	10 13-R	10 16-R	10 19-R	10 22-R	10 25-R	10 28-R	10 31-R	10 34-R	10 37-R	10 40-R	10 43-R	10 46-R	10 49-R	10 52-R	10 55-R	10 58-R	11 01-R	11 04-R	11 07-R	11 10-R	11 13-R	11 16-R	11 19-R	11 22-R	11 25-R	11 28-R	11 31-R	11 34-R	11 37-R	11 40-R	11 43-R	11 46-R	11 49-R	11 52-R	11 55-R	11 58-R	12 01-R	12 04-R	12 07-R	12 10-R	12 13-R	12 16-R	12 19-R	12 22-R	12 25-R	12 28-R	12 31-R	12 34-R	12 37-R	12 40-R	12 43-R	12 46-R	12 49-R	12 52-R	12 55-R	12 58-R	13 01-R	13 04-R	13 07-R	13 10-R	13 13-R	13 16-R	13 19-R	13 22-R	13 25-R	13 28-R	13 31-R	13 34-R	13 37-R	13 40-R	13 43-R	13 46-R	13 49-R	13 52-R	13 55-R	13 58-R	14 01-R	14 04-R	14 07-R	14 10-R	14 13-R	14 16-R	14 19-R	14 22-R	14 25-R	14 28-R	14 31-R	14 34-R	14 37-R	14 40-R	14 43-R	14 46-R	14 49-R	14 52-R	14 55-R	14 58-R	15 01-R	15 04-R	15 07-R	15 10-R	15 13-R	15 16-R	15 19-R	15 22-R	15 25-R	15 28-R	15 31-R	15 34-R	15 37-R	15 40-R	15 43-R	15 46-R	15 49-R	15 52-R	15 55-R	15 58-R	16 01-R	16 04-R	16 07-R	16 10-R	16 13-R	16 16-R	16 19-R	16 22-R	16 25-R	16 28-R	16 31-R	16 34-R	16 37-R	16 40-R	16 43-R	16 46-R	16 49-R	16 52-R	16 55-R	16 58-R	17 01-R	17 04-R	17 07-R	17 10-R	17 13-R	17 16-R	17 19-R	17 22-R	17 25-R	17 28-R	17 31-R	17 34-R	17 37-R	17 40-R	17 43-R	17 46-R	17 49-R	17 52-R	17 55-R	17 58-R	18 01-R	18 04-R	18 07-R	18 10-R	18 13-R	18 16-R	18 19-R	18 22-R	18 25-R	18 28-R	18 31-R	18 34-R	18 37-R	18 40-R	18 43-R	18 46-R	18 49-R	18 52-R	18 55-R	18 58-R	19 01-R	19 04-R	19 07-R	19 10-R	19 13-R	19 16-R	19 19-R	19 22-R	19 25-R	19 28-R	19 31-R	19 34-R	19 37-R	19 40-R	19 43-R	19 46-R	19 49-R	19 52-R	19 55-R	19 58-R	20 01-R	20 04-R	20 07-R	20 10-R	20 13-R	20 16-R	20 19-R	20 22-R	20 25-R	20 28-R	20 31-R	20 34-R	20 37-R	20 40-R	20 43-R	20 46-R	20 49-R	20 52-R	20 55-R	20 58-R	21 01-R	21 04-R	21 07-R	21 10-R	21 13-R	21 16-R	21 19-R	21 22-R	21 25-R	21 28-R	21 31-R	21 34-R	21 37-R	21 40-R	21 43-R	21 46-R	21 49-R	21 52-R	21 55-R	21 58-R	22 01-R	22 04-R	22 07-R	22 10-R	22 13-R	22 16-R	22 19-R	22 22-R	22 25-R	22 28-R	22 31-R	22 34-R	22 37-R	22 40-R	22 43-R	22 46-R	22 49-R	22 52-R	22 55-R	22 58-R	23 01-R	23 04-R	23 07-R	23 10-R	23 13-R	23 16-R	23 19-R	23 22-R	23 25-R	23 28-R	23 31-R	23 34-R	23 37-R	23 40-R	23 43-R	23 46-R	23 49-R	23 52-R	23 55-R	23 58-R	24 01-R	24 04-R	24 07-R	24 10-R	24 13-R	24 16-R	24 19-R	24 22-R	24 25-R	24 28-R	24 31-R	24 34-R	24 37-R	24 40-R	24 43-R	24 46-R	24 49-R	24 52-R	24 55-R	24 58-R	25 01-R	25 04-R	25 07-R	25 10-R	25 13-R	25 16-R	25 19-R	25 22-R	25 25-R	25 28-R	25 31-R	25 34-R	25 37-R	25 40-R	25 43-R	25 46-R	25 49-R	25 52-R	25 55-R	25 58-R	26 01-R	26 04-R	26 07-R	26 10-R	26 13-R	26 16-R	26 19-R	26 22-R	26 25-R	26 28-R	26 31-R	26 34-R	26 37-R	26 40-R	26 43-R	26 46-R	26 49-R	26 52-R	26 55-R	26 58-R	27 01-R	27 04-R	27 07-R	27 10-R	27 13-R	27 16-R	27 19-R	27 22-R	27 25-R	27 28-R	27 31-R	27 34-R	27 37-R	27 40-R	27 43-R	27 46-R	27 49-R	27 52-R	27 55-R	27 58-R	28 01-R	28 04-R	28 07-R	28 10-R	28 13-R	28 16-R	28 19-R	28 22-R	28 25-R	28 28-R	28 31-R	28 34-R	28 37-R	28 40-R	28 43-R	28 46-R	28 49-R	28 52-R	28 55-R	28 58-R	29 01-R	29 04-R	29 07-R	29 10-R	29 13-R	29 16-R	29 19-R	29 22-R	29 25-R	29 28-R	29 31-R	29 34-R	29 37-R	29 40-R	29 43-R	29 46-R	29 49-R	29 52-R	29 55-R	29 58-R	30 01-R	30 04-R	30 07-R	30 10-R	30 13-R	30 16-R	30 19-R	30 22-R	30 25-R	30 28-R	30 31-R	30 34-R	30 37-R	30 40-R	30 43-R	30 46-R	30 49-R	30 52-R	30 55-R	30 58-R	31 01-R	31 04-R	31 07-R	31 10-R	31 13-R	31 16-R	31 19-R	31 22-R	31 25-R	31 28-R	31 31-R	31 34-R	31 37-R	31 40-R	31 43-R	31 46-R	31 49-R	31 52-R	31 55-R	31 58-R	32 01-R	32 04-R	32 07-R	32 10-R	32 13-R	32 16-R	32 19-R	32 22-R	32 25-R	32 28-R	32 31-R	32 34-R	32 37-R	32 40-R	32 43-R	32 46-R	32 49-R	32 52-R	32 55-R	32 58-R	33 01-R	33 04-R	33 07-R	33 10-R	33 13-R	33 16-R	33 19-R	33 22-R	33 25-R	33 28-R	33 31-R	33 34-R	33 37-R	33 40-R	33 43-R	33 46-R	33 49-R	33 52-R	33 55-R	33 58-R	34 01-R	34 04-R	34 07-R	34 10-R	34 13-R	34 16-R	34 19-R	34 22-R	34 25-R	34 28-R	34 31-R	34 34-R	34 37-R	34 40-R	34 43-R	34 46-R	34 49-R	34 52-R	34 55-R	34 58-R	35 01-R	35 04-R	35 07-R	35 10-R	35 13-R	35 16-R	35 19-R	35 22-R	35 25-R	35 28-R	35 31-R	35 34-R	35 37-R	35 40-R	35 43-R	35 46-R	35 49-R	35 52-R	35 55-R	35 58-R	36 01-R	36 04-R	36 07-R	36 10-R	36 13-R	36 16-R	36 19-R	36 22-R	36 25-R	36 28-R	36 31-R	36 34-R	36 37-R	36 40-R	36 43-R	36 46-R	36 49-R	36 52-R	36 55-R	36 58-R	37 01-R	37 04-R	37 07-R	37 10-R	37 13-R	37 16-R	37 19-R	37 22-R	37 25-R	37 28-R	37 31-R	37 34-R	37 37-R	37 40-R	37 43-R	37 46-R	37 49-R	37 52-R	37 55-R	37 58-R	38 01-R	38 04-R	38 07-R	38 10-R	38 13-R	38 16-R	38 19-R	38 22-R	38 25-R	38 28-R	38 31-R	38 34-R	38 37-R	38 40-R	38 43-R	38 46-R	38 49-R	38 52-R	38 55-R	38 58-R	39 01-R	39 04-R	39 07-R	39 10-R	39 13-R	39 16-R	39 19-R	39 22-R	39 25-R	39 28-R	39 31-R	39 34-R	39 37-R	39 40-R	39 43-R	39 46-R	39 49-R	39 52-R	39 55-R	39 58-R	40 01-R	40 04-R	40 07-R	40 10-R	40 13-R	40 16-R	40 19-R	40 22-R	40 25-R	40 28-R	40 31-R	40 34-R	40 37-R	40 40-R	40 43-R	40 46-R	40 49-R	40 52-R	40 55-R	40 58-R	41 01-R	41 04-R	41 07-R	41 10-R	41 13-R	41 16-R	41 19-R	41 22-R	41 25-R	41 28-R	41 31-R	41 34-R	41 37-R	41 40-R	41 43-R	41 46-R	41 49-R	41 52-R	41 55-R	41 58-R	42 01-R	42 04-R	42 07-R	42 10-R	42 13-R	42 16-R	42 19-R	42 22-R	42 25-R	42 28-R	42 31-R	42 34-R	42 37-R	42 40-R	42 43-R	42 46-R	42 49-R	42 52-R	42 55-R	42 58-R	43 01-R	43 04-R	43 07-R	43 10-R	43 13-R	43 16-R	43 19-R	43 22-R	43 25-R	43 28-R	43 31-R	43 34-R	43 37-R	43 40-R	43 43-R	43 46-R	43 49-R	43 52-R	43 55-R	43 58-R	44 01-R	44 04-R	44 07-R	44 10-R	44 13-R	44 16-R	44 19-R	44 22-R	44 25-R	44 28-R	44 31-R	44 34-R	44 37-R	44 40-R	44 43-R	44 46-R	44 49-R	44 52-R	44 55-R	44 58-R	45 01-R	45 04-R	45 07-R	45 10-R	45 13-R	45 16-R	45 19-R	45 22-R	45 25-R	45 28-R	45 31-R	45 34-R	45 37-R	45 40-R	45 43-R	45 46-R	45 49-R	45 52-R	45 55-R	45 58-R	46 01-R	46 04-R	46 07-R	46 10-R	46 13-R	46 16-R	46 19-R	46 22-R	46 25-R	46 28-R	46 31-R	46 34-R	46 37-R	46 40-R	46 43-R	46 46-R	46 49-R	46 52-R	46 55-R	46 58-R	47 01-R	47 04-R	47 07-R	47 10-R	47 13-R	47 16-R	47 19-R	47 22-R	47 25-R	47 28-R	47 31-R	47 34-R	47 37-R	47 40-R	47 43-R	47 46-R	47 49-R	47 52-R	47 55-R	47 58-R	48 01-R	48 04-R	48 07-R	48 10-R	48 13-R	48 16-R	48 19-R	48 22-R	48 25-R	48 28-R	48 31-R	48 34-R	48 37-R	48 40-R	48 43-R	48 46-R	48 49-R	48 52-R	48 55-R	48 58-R	49 01-R	49 04-R	49 07-R	49 10-R	49 13-R	49 16-R	49 19-R	49 22-R	49 25-R	49 28-R	49 31-R	49 34-R	49 37-R	49 40-R	49 43-R	49 46-R	49 49-R	49 52-R	49 55-R	49 58-R	50 01-R	50 04-R	50 07-R	50 10-R	50 13-R	50 16-R	50 19-R	50 22-R	50 25-R	50 28-R	50 31-R	50 34-R	50 37-R	50 40-R	50 43-R	50 46-R	50 49-R	50 52-R	50 55-R	50 58-R	51 01-R	51 04-R	51 07-R	51 10-R	51 13-R	51 16-R	51 19-R	51 22-R	51 25-R	51 28-R	51 31-R	51 34-R	51 37-R	51 40-R	51 43-R	51 46-R	51 49-R	51 52-R	51 55-R	51 58-R	52 01-R	52 04-R	52 07-R	52 10-R	52 13-R	52 16-R	52 19-R	52 22-R	52 25-R	52 28-R	52 31-R	52 34-R	52 37-R	52 40-R	52 43-R	52 46-R	52 49-R	52 52-R	52 55-R	52 58-R	53 01-R	53 04-R	53 07-R	53 10-R	53 13-R	53 16-R	53 19-R	53 22-R	53 25-R	53 28-R	53 31-R	53 34-R	53 37-R	53 40-R	53 43-R	53 46-R	53 49-R	53 52-R	53 55-R	53 58-R	54 01-R	54 04-R	54 07-R	54 10-R	54 13-R	54 16-R	54 19-R	54 22-R	54 25-R	54 28-R	54 31-R	54 34-R	54 37-R	54 40-R	54 43-R	54 46-R	54 49-R	54 52-R	54 55-R	54 58-R	55 01-R	55 04-R	55 07-R	55 10-R	55 13-R	55 16-R	55 19-R	55 22-R	55 25-R	55 28-R	55 31-R	55 34-R	55 37-R	55 40-R	55 43-R	55 46-R	55 49-R	55 52-R	55 55-R	55 58-R	56 01-R	56 04-R	56 07-R	56 10-R	56 13-R	56 16-R	56 19-R	56 22-R	56 25-R	56 28-R	56 31-R	56 34-R	56 37-R	56 40-R	56 43-R	56 46-R	56 49-R	56 52-R	56 55-R	56 58-R	57 01-R	57 04-R	57 07-R	57 10-R	57 13-R	57 16-R	57 19-R	57 22-R	57 25-R	57 28-R	57 31-R	57 34-R	
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ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON Q2 S-R ENERGY BANDS		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.7938-83 (1.86 00 NORMAL)		Q- PHOTO-DET (IONS)		FREE-FREE P.E.		TOTAL AIR	
1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.	1ST POS.	2ND POS.
52	5.60 0.30E-14	0.	0.	1.32E-05	7.26E-05	0.	0.	1.20E-01	3.76E-01	9.63E-01	5.10E-01	1.90E-09	0.
53	5.50 0.	0.	0.	1.32E-05	6.71E-05	0.	0.	1.20E-01	3.97E-01	9.85E-01	5.23E-01	2.07E-09	0.
54	5.40 0.	0.	0.	1.30E-05	5.64E-05	0.	0.	1.20E-01	4.19E-01	1.01E-01	5.27E-01	2.09E-09	0.
55	5.30 0.	0.	0.	1.31E-05	4.94E-05	0.	0.	1.30E-01	4.44E-01	1.01E-01	5.30E-01	2.15E-09	0.
56	5.20 0.	0.	0.	1.44E-05	3.54E-05	0.	0.	1.31E-01	4.70E-01	1.07E-01	5.49E-01	2.21E-09	0.
57	5.10 0.	0.	0.	1.49E-05	2.94E-05	0.	0.	1.75E-01	4.99E-01	1.10E-01	5.53E-01	2.26E-09	0.
58	5.00 1.01E-06	0.	0.	1.31E-05	2.76E-05	0.	0.	1.35E-01	5.35E-01	1.15E-01	5.64E-01	2.36E-09	0.
59	4.90 3.00E-06	0.	0.	1.30E-05	2.76E-05	0.	0.	1.36E-01	5.68E-01	1.17E-01	5.71E-01	2.44E-09	0.
60	4.80 5.72E-06	0.	0.	1.62E-05	7.08E-05	0.	0.	1.37E-01	6.09E-01	1.22E-01	5.84E-01	2.54E-09	0.
61	4.70 7.60E-06	0.	0.	1.64E-05	6.40E-05	0.	0.	1.37E-01	6.39E-01	1.25E-01	5.91E-01	2.64E-09	0.
62	4.60 1.03E-05	0.	0.	1.70E-05	5.80E-05	0.	0.	1.39E-01	6.85E-01	1.32E-01	6.16E-01	2.76E-09	0.
63	4.50 1.17E-05	0.	0.	1.80E-05	4.40E-05	0.	0.	1.39E-01	7.25E-01	1.39E-01	6.33E-01	2.89E-09	0.
64	4.40 1.27E-05	0.	0.	1.80E-05	3.02E-05	0.	0.	1.40E-01	7.70E-01	1.46E-01	6.50E-01	3.03E-09	0.
65	4.30 1.22E-05	0.	0.	1.59E-05	1.92E-05	0.	0.	1.41E-01	8.20E-01	1.56E-01	6.69E-01	3.19E-09	0.
66	4.20 1.15E-05	0.	0.	1.62E-05	1.31E-05	0.	0.	1.42E-01	8.75E-01	1.67E-01	6.87E-01	3.35E-09	0.
67	4.10 1.09E-05	0.	0.	1.62E-05	7.31E-06	0.	0.	1.43E-01	9.35E-01	1.78E-01	7.06E-01	3.50E-09	0.
68	4.00 1.02E-05	0.	0.	1.60E-05	2.70E-06	0.	0.	1.43E-01	1.04E-01	1.78E-01	7.26E-01	3.62E-09	0.
69	3.90 0.79E-06	0.	0.	1.49E-05	1.03E-06	0.	0.	1.43E-01	1.15E-01	1.77E-01	7.47E-01	3.74E-09	0.
70	3.80 0.70E-06	0.	0.	1.41E-05	0.	0.	0.	1.43E-01	1.25E-01	1.77E-01	7.68E-01	3.86E-09	0.
71	3.70 0.61E-06	0.	0.	1.41E-05	0.	0.	0.	1.43E-01	1.35E-01	1.79E-01	7.89E-01	3.98E-09	0.
72	3.60 0.45E-06	0.	0.	1.32E-05	0.	0.	0.	1.35E-01	1.45E-01	1.81E-01	8.10E-01	4.10E-09	0.
73	3.50 7.01E-06	0.	0.	1.32E-05	1.21E-05	0.	0.	1.28E-01	1.57E-01	1.75E-01	8.30E-01	4.22E-09	0.
74	3.40 7.01E-06	0.	0.	5.46E-04	1.39E-05	0.	0.	6.98E-02	1.71E-01	1.93E-01	8.50E-01	4.34E-09	0.
75	3.30 5.73E-06	0.	0.	5.90E-04	2.07E-05	0.	0.	6.94E-02	1.86E-01	2.12E-01	8.70E-01	4.46E-09	0.
76	3.20 5.00E-06	0.	0.	7.95E-04	3.14E-05	0.	0.	6.96E-02	2.07E-01	2.32E-01	8.90E-01	4.58E-09	0.
77	3.10 4.04E-06	0.	0.	2.93E-04	9.16E-06	0.	0.	6.96E-02	2.31E-01	2.52E-01	9.10E-01	4.70E-09	0.
78	3.00 4.50E-06	0.	0.	1.04E-04	1.09E-05	0.	0.	6.96E-02	2.51E-01	2.72E-01	9.30E-01	4.82E-09	0.
79	2.90 5.06E-06	0.	0.	1.17E-04	1.09E-05	0.	0.	6.96E-02	2.76E-01	2.95E-01	9.50E-01	4.94E-09	0.
80	2.80 4.07E-06	0.	0.	5.02E-05	7.53E-06	0.	0.	7.00E-02	3.06E-01	3.21E-01	9.70E-01	5.06E-09	0.
81	2.70 2.09E-06	0.	0.	2.44E-05	9.15E-06	0.	0.	7.00E-02	3.40E-01	3.49E-01	9.90E-01	5.18E-09	0.
82	2.60 1.31E-06	0.	0.	1.37E-05	9.78E-06	0.	0.	7.00E-02	3.80E-01	3.79E-01	1.02E-01	5.30E-09	0.
83	2.50 9.31E-06	0.	0.	1.31E-06	3.86E-07	0.	0.	7.00E-02	4.30E-01	4.35E-01	1.04E-01	5.42E-09	0.
84	2.40 0.	0.	0.	5.44E-05	7.14E-06	0.	0.	6.95E-02	4.90E-01	5.02E-01	1.06E-01	5.54E-09	0.
85	2.30 0.	0.	0.	1.62E-04	0.	0.	0.	6.95E-02	5.45E-01	5.45E-01	1.08E-01	5.66E-09	0.
86	2.20 0.	0.	0.	4.02E-04	0.	0.	0.	6.95E-02	6.05E-01	6.24E-01	1.10E-01	5.78E-09	0.
87	2.10 0.	0.	0.	4.11E-04	0.	0.	0.	6.95E-02	6.70E-01	6.70E-01	1.12E-01	5.90E-09	0.
88	2.00 0.	0.	0.	6.90E-04	3.	0.	0.	6.95E-02	7.40E-01	7.13E-01	1.14E-01	6.02E-09	0.
89	1.90 0.	0.	0.	1.03E-03	0.	0.	0.	6.95E-02	8.15E-01	8.20E-01	1.16E-01	6.14E-09	0.
90	1.80 0.	0.	0.	0.91E-04	0.	0.	0.	6.95E-02	9.00E-01	9.00E-01	1.18E-01	6.26E-09	0.
91	1.70 0.	0.	0.	0.80E-03	0.	0.	0.	6.95E-02	1.00E-01	1.10E-01	1.20E-01	6.38E-09	0.
92	1.60 0.	0.	0.	7.02E-04	0.	0.	0.	6.95E-02	1.10E-01	1.30E-01	1.22E-01	6.50E-09	0.
93	1.50 0.	0.	0.	6.02E-04	0.	0.	0.	6.95E-02	1.20E-01	1.50E-01	1.24E-01	6.62E-09	0.
94	1.40 0.	0.	0.	4.00E-04	0.	0.	0.	6.95E-02	1.30E-01	1.80E-01	1.26E-01	6.74E-09	0.
95	1.30 0.	0.	0.	3.00E-04	0.	0.	0.	6.95E-02	1.40E-01	2.00E-01	1.28E-01	6.86E-09	0.
96	1.20 0.	0.	0.	2.00E-04	0.	0.	0.	6.95E-02	1.50E-01	2.20E-01	1.30E-01	6.98E-09	0.
97	1.10 0.	0.	0.	1.00E-04	0.	0.	0.	6.95E-02	1.60E-01	2.40E-01	1.32E-01	7.10E-09	0.
98	1.00 0.	0.	0.	5.00E-04	0.	0.	0.	6.95E-02	1.70E-01	2.60E-01	1.34E-01	7.22E-09	0.
99	0.90 0.	0.	0.	4.50E-04	0.	0.	0.	6.95E-02	1.80E-01	2.80E-01	1.36E-01	7.34E-09	0.
100	0.80 0.	0.	0.	2.13E-04	0.	0.	0.	6.95E-02	1.90E-01	3.00E-01	1.38E-01	7.46E-09	0.
101	0.70 0.	0.	0.	1.06E-05	0.	0.	0.	6.95E-02	2.00E-01	3.20E-01	1.40E-01	7.58E-09	0.
102	0.60 0.	0.	0.	1.14E-05	0.	0.	0.	6.95E-02	2.10E-01	3.40E-01	1.42E-01	7.70E-09	0.

TEMPERATURE (DEGREES K) 3200. DENSITY (G/CC) 1.293E-04 (1.0E-01 NORMAL)

[illegible]

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.2035-05 (10.45-03 NORMAL)		0- FREE-FREE		TOTAL AIR	
PHOTON 02 3-8		02 3-4		NO		PHOTO-DET (100S)		P.E.	
ENERGY BANDS		NO. 1		NO		P.E.		P.E.	
E.V.		NO. 2		NO		P.E.		P.E.	
1 10.70 0.	0.	0.005-10	0.	0.	0.	3.20E-04	4.15E-05	1.05E-02	5.25E-04
2 10.40 0.	0.	0.20E-10	0.	0.	0.	3.20E-04	4.27E-05	1.42E-02	5.25E-04
3 10.50 0.	0.	0.35E-10	0.	0.	0.	3.20E-04	4.39E-05	1.42E-02	5.25E-04
4 10.40 0.	0.	0.80E-10	0.	0.	0.	3.20E-04	4.51E-05	1.42E-02	5.25E-04
5 10.30 0.	0.	7.11E-10	0.	0.	0.	3.20E-04	4.64E-05	1.44E-02	5.14E-04
6 10.20 0.	0.	7.47E-10	0.	0.	0.	3.20E-04	4.80E-05	1.44E-02	5.14E-04
7 10.10 0.	0.	7.82E-10	0.	0.	0.	3.20E-04	4.96E-05	1.44E-02	5.14E-04
8 10.00 0.	0.	8.31E-10	0.	0.	0.	3.31E-04	5.07E-05	1.34E-02	5.08E-04
9 9.90 0.	0.	8.51E-10	0.	0.	0.	3.31E-04	5.29E-05	1.34E-02	5.08E-04
10 9.80 0.	0.	8.20E-10	0.	0.	0.	3.32E-04	5.42E-05	1.35E-02	5.01E-04
11 9.70 0.	0.	5.44E-10	0.	0.	0.	3.32E-04	5.59E-05	1.35E-02	5.01E-04
12 9.60 0.	0.	5.92E-10	0.	0.	0.	3.32E-04	5.77E-05	1.35E-02	4.99E-04
13 9.50 0.	0.	5.16E-10	0.	0.	0.	3.34E-04	5.94E-05	1.34E-02	4.97E-04
14 9.40 0.	0.	4.94E-10	0.	0.	0.	3.35E-04	6.12E-05	1.34E-02	4.96E-04
15 9.30 0.	0.	5.10E-10	0.	0.	0.	3.36E-04	6.39E-05	1.37E-02	4.92E-04
16 9.20 0.	0.	4.33E-10	0.	0.	0.	3.37E-04	6.56E-05	1.37E-02	4.96E-04
17 9.10 0.	0.	4.47E-10	0.	0.	0.	3.38E-04	6.78E-05	1.37E-02	4.88E-04
18 9.00 0.	0.	4.11E-10	0.	0.	0.	3.40E-04	7.01E-05	1.37E-02	4.85E-04
19 8.90 0.	0.	3.80E-10	0.	0.	0.	3.41E-04	7.25E-05	1.37E-02	4.83E-04
20 8.80 0.	0.	3.64E-10	0.	0.	0.	3.42E-04	7.51E-05	1.37E-02	4.81E-04
21 8.70 0.	0.	3.40E-10	0.	0.	0.	3.43E-04	7.78E-05	1.37E-02	4.79E-04
22 8.60 0.	0.	3.53E-10	0.	0.	0.	3.45E-04	8.05E-05	1.37E-02	4.77E-04
23 8.50 0.	0.	3.14E-10	0.	0.	0.	3.46E-04	8.34E-05	1.37E-02	4.75E-04
24 8.45 0.	0.	3.14E-10	0.	0.	0.	3.48E-04	8.64E-05	1.37E-02	4.73E-04
25 8.30 0.	0.	2.74E-10	0.	0.	0.	3.49E-04	8.94E-05	1.37E-02	4.72E-04
26 8.20 0.	0.	2.79E-10	0.	0.	0.	3.51E-04	9.30E-05	1.37E-02	4.71E-04
27 8.10 0.	0.	2.40E-10	0.	0.	0.	3.52E-04	9.65E-05	1.37E-02	4.70E-04
28 8.00 0.	0.	2.50E-10	0.	0.	0.	3.53E-04	1.00E-04	1.37E-02	4.72E-04
29 7.90 0.	0.	2.19E-10	0.	0.	0.	3.57E-04	1.04E-04	1.37E-02	4.73E-04
30 7.80 0.	0.	2.20E-10	0.	0.	0.	3.58E-04	1.08E-04	1.37E-02	4.73E-04
31 7.70 0.	0.	2.05E-10	0.	0.	0.	3.60E-04	1.12E-04	1.37E-02	4.73E-04
32 7.60 0.	0.	1.97E-10	0.	0.	0.	3.62E-04	1.17E-04	1.37E-02	4.74E-04
33 7.50 0.	0.	1.69E-10	0.	0.	0.	3.64E-04	1.22E-04	1.37E-02	4.74E-04
34 7.40 0.	0.	1.69E-10	0.	0.	0.	3.66E-04	1.27E-04	1.37E-02	4.74E-04
35 7.30 0.	0.	1.42E-10	0.	0.	0.	3.68E-04	1.32E-04	1.37E-02	4.74E-04
36 7.20 0.	0.	1.49E-10	0.	0.	0.	3.70E-04	1.36E-04	1.37E-02	4.73E-04
37 7.10 0.	0.	1.45E-10	0.	0.	0.	3.72E-04	1.40E-04	1.37E-02	4.73E-04
38 7.00 5.5E-14	0.	1.35E-10	0.	0.	0.	3.74E-04	1.45E-04	1.37E-02	4.75E-04
39 6.90 1.80E-13	0.	1.25E-10	0.	0.	0.	3.76E-04	1.49E-04	1.37E-02	4.75E-04
40 6.80 9.44E-14	0.	1.23E-10	0.	0.	0.	3.78E-04	1.54E-04	1.37E-02	4.76E-04
41 6.70 6.95E-14	0.	1.09E-10	0.	0.	0.	3.82E-04	1.69E-04	1.37E-02	4.76E-04
42 6.60 4.28E-14	0.	9.95E-11	0.	0.	0.	3.86E-04	1.71E-04	1.37E-02	4.77E-04
43 6.50 2.49E-14	0.	8.09E-11	0.	0.	0.	3.91E-04	1.80E-04	1.37E-02	4.80E-04
44 6.40 1.45E-14	0.	5.75E-11	0.	0.	0.	3.94E-04	1.89E-04	1.37E-02	4.81E-04
45 6.30 0.53E-15	0.	3.89E-11	0.	0.	0.	3.97E-04	2.02E-04	1.37E-02	4.83E-04
46 6.20 3.90E-15	0.	2.10E-11	0.	0.	0.	4.00E-04	2.15E-04	1.37E-02	4.86E-04
47 6.10 1.82E-15	0.	1.81E-11	0.	0.	0.	4.03E-04	2.29E-04	1.37E-02	4.90E-04
48 6.00 7.60E-16	0.	2.61E-12	0.	0.	0.	4.06E-04	2.43E-04	1.37E-02	4.93E-04
49 5.90 1.91E-16	0.	1.87E-13	0.	0.	0.	4.08E-04	2.58E-04	1.37E-02	4.97E-04
50 5.80 2.44E-17	0.	4.75E-15	0.	0.	0.	4.09E-04	2.68E-04	1.37E-02	5.00E-04
51 5.70 1.80E-18	0.	9.34E-12	0.	0.	0.	3.70E-04	2.80E-04	1.37E-02	5.04E-04

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 3-R		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.2036-05		(18.05-03 NORMAL)		P.E.		TOTAL AIR	
ENERGY BANDS	1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	NO	GAMMA	VIB-ROT	NO	PHOTO-DET (IONS)	N	P.E.	Q	P.E.
52 5.60 0.15E-20	0.	0.	0.	0.	8.19E-12	5.26E-11	0.	0.	3.50E-04	2.95E-04	7.94E-04	5.00E-04	1.00E-03
53 5.90 0.	0.	0.	0.	0.	1.02E-11	4.07E-11	0.	0.	3.51E-04	3.12E-04	8.13E-04	5.13E-04	1.04E-03
54 5.40 0.	0.	0.	0.	0.	9.40E-12	4.09E-11	0.	0.	3.53E-04	3.30E-04	8.34E-04	5.19E-04	1.04E-03
55 5.30 0.	0.	0.	0.	0.	9.30E-12	5.05E-11	0.	0.	3.56E-04	3.49E-04	8.60E-04	5.26E-04	1.04E-03
56 5.20 0.	0.	0.	0.	0.	1.05E-11	4.08E-11	0.	0.	3.58E-04	3.70E-04	8.82E-04	5.36E-04	1.04E-03
57 5.10 0.	0.	0.	0.	0.	1.05E-11	5.11E-11	0.	0.	3.61E-04	3.92E-04	9.04E-04	5.40E-04	1.04E-03
58 5.00 0.	0.	0.	0.	0.	9.40E-12	4.90E-11	0.	0.	3.64E-04	4.17E-04	9.25E-04	5.40E-04	1.04E-03
59 4.90 2.95E-12	0.	0.	0.	0.	1.05E-11	5.14E-11	0.	0.	3.67E-04	4.43E-04	9.47E-04	5.50E-04	1.04E-03
60 4.80 0.44E-12	0.	0.	0.	0.	1.05E-11	5.14E-11	0.	0.	3.70E-04	4.70E-04	9.70E-04	5.70E-04	1.04E-03
61 4.70 7.47E-12	0.	0.	0.	0.	1.05E-11	4.70E-11	0.	0.	3.73E-04	5.01E-04	9.95E-04	5.86E-04	2.07E-03
62 4.60 1.05E-11	0.	0.	0.	0.	1.23E-11	4.20E-11	0.	0.	3.76E-04	5.37E-04	1.02E-03	6.02E-04	2.16E-03
63 4.50 1.11E-11	0.	0.	0.	0.	1.15E-11	3.22E-11	0.	0.	3.79E-04	5.74E-04	1.08E-03	6.18E-04	2.27E-03
64 4.40 1.11E-11	0.	0.	0.	0.	1.15E-11	2.19E-11	0.	0.	3.82E-04	6.12E-04	1.13E-03	6.35E-04	2.39E-03
65 4.30 1.16E-11	0.	0.	0.	0.	1.2E-11	1.49E-11	0.	0.	3.85E-04	6.50E-04	1.20E-03	6.53E-04	2.51E-03
66 4.20 1.09E-11	0.	0.	0.	0.	1.18E-11	9.54E-12	0.	0.	3.88E-04	7.07E-04	1.26E-03	6.71E-04	2.64E-03
67 4.10 1.04E-11	0.	0.	0.	0.	1.17E-11	2.71E-12	0.	0.	3.90E-04	7.60E-04	1.32E-03	6.88E-04	2.75E-03
68 4.00 9.40E-12	0.	0.	0.	0.	1.15E-11	2.02E-12	0.	0.	3.91E-04	8.19E-04	1.39E-03	7.02E-04	2.85E-03
69 3.90 0.35E-12	0.	0.	0.	0.	2.09E-10	3.99E-09	0.	0.	3.90E-04	8.79E-04	1.46E-03	7.18E-04	2.95E-03
70 3.80 0.22E-12	0.	0.	0.	0.	4.60E-10	1.53E-08	0.	0.	3.90E-04	9.39E-04	1.53E-03	7.34E-04	3.05E-03
71 3.70 0.36E-12	0.	0.	0.	0.	4.71E-10	7.50E-09	0.	0.	3.92E-04	1.0E-03	1.60E-03	7.50E-04	3.15E-03
72 3.60 7.83E-12	0.	0.	0.	0.	3.52E-10	3.77E-08	0.	0.	3.90E-04	1.1E-03	1.67E-03	7.66E-04	3.25E-03
73 3.50 7.23E-12	0.	0.	0.	0.	4.55E-10	6.51E-08	0.	0.	3.90E-04	1.2E-03	1.74E-03	7.82E-04	3.35E-03
74 3.40 6.74E-12	0.	0.	0.	0.	3.03E-10	1.14E-08	0.	0.	1.00E-04	1.3E-03	1.81E-03	7.98E-04	3.45E-03
75 3.30 5.46E-12	0.	0.	0.	0.	3.09E-10	4.09E-08	0.	0.	1.00E-04	1.4E-03	1.88E-03	8.14E-04	3.55E-03
76 3.20 4.22E-12	0.	0.	0.	0.	2.80E-10	6.22E-08	0.	0.	1.00E-04	1.5E-03	1.95E-03	8.30E-04	3.65E-03
77 3.10 4.09E-12	0.	0.	0.	0.	1.64E-10	1.81E-08	0.	0.	1.00E-04	1.6E-03	2.02E-03	8.46E-04	3.75E-03
78 3.00 4.20E-12	0.	0.	0.	0.	1.82E-10	3.06E-08	0.	0.	1.00E-04	1.7E-03	2.10E-03	8.62E-04	3.85E-03
79 2.90 3.64E-12	0.	0.	0.	0.	6.47E-11	2.80E-08	0.	0.	1.01E-04	2.1E-03	2.30E-03	8.90E-04	4.05E-03
80 2.80 3.44E-12	0.	0.	0.	0.	3.12E-11	1.49E-08	0.	0.	1.01E-04	2.4E-03	2.50E-03	9.20E-04	4.25E-03
81 2.70 2.59E-12	0.	0.	0.	0.	1.47E-11	1.81E-08	0.	0.	1.01E-04	2.7E-03	2.70E-03	9.50E-04	4.45E-03
82 2.60 1.84E-12	0.	0.	0.	0.	7.84E-12	1.93E-09	0.	0.	1.01E-04	3.0E-03	2.90E-03	9.80E-04	4.65E-03
83 2.50 0.84E-14	0.	0.	0.	0.	7.24E-13	1.96E-09	0.	0.	1.01E-04	3.4E-03	3.20E-03	1.01E-03	4.85E-03
84 2.40 0.	0.	0.	0.	0.	1.41E-09	3.03E-14	0.	0.	1.01E-04	3.8E-03	3.50E-03	1.04E-03	5.05E-03
85 2.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	4.2E-03	3.80E-03	1.07E-03	5.25E-03
86 2.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	4.6E-03	4.10E-03	1.10E-03	5.45E-03
87 2.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	5.0E-03	4.40E-03	1.13E-03	5.65E-03
88 2.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	5.4E-03	4.70E-03	1.16E-03	5.85E-03
89 1.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	5.8E-03	5.00E-03	1.19E-03	6.05E-03
90 1.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	6.2E-03	5.30E-03	1.22E-03	6.25E-03
91 1.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	6.6E-03	5.60E-03	1.25E-03	6.45E-03
92 1.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	7.0E-03	5.90E-03	1.28E-03	6.65E-03
93 1.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	7.4E-03	6.20E-03	1.31E-03	6.85E-03
94 1.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	7.8E-03	6.50E-03	1.34E-03	7.05E-03
95 1.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	8.2E-03	6.80E-03	1.37E-03	7.25E-03
96 1.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	8.6E-03	7.10E-03	1.40E-03	7.45E-03
97 1.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	9.0E-03	7.40E-03	1.43E-03	7.65E-03
98 1.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	9.4E-03	7.70E-03	1.46E-03	7.85E-03
99 0.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	9.8E-03	8.00E-03	1.49E-03	8.05E-03
100 0.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	1.02E-02	8.30E-03	1.52E-03	8.25E-03
101 0.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	1.06E-02	8.60E-03	1.55E-03	8.45E-03
102 0.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	1.00E-04	1.10E-02	8.90E-03	1.58E-03	8.65E-03

ABSORPTION COEFFICIENTS OF HEATER AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 27000.		DENSITY (GM/CC) 1.2928-04 (10-06-04 NORMAL)		0- FREE-FREE M		P.E.		0 TOTAL AIR	
PHOTON D2 S-R ENERGY RANGE3 CONT. NO. 1	NO 2	NO 3	NO 4	NO 5	NO 6	NO 7	NO 8	NO 9	NO 10
E.V.	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9
1 10.74 0.	1.00E-13	0.	0.	0.	0.	0.	0.	0.	0.
2 10.40 0.	9.77E-14	0.	0.	0.	0.	0.	0.	0.	0.
3 10.30 0.	9.64E-14	0.	0.	0.	0.	0.	0.	0.	0.
4 10.40 0.	9.50E-14	0.	0.	0.	0.	0.	0.	0.	0.
5 10.30 0.	9.40E-14	0.	0.	0.	0.	0.	0.	0.	0.
6 10.20 0.	9.09E-14	0.	0.	0.	0.	0.	0.	0.	0.
7 10.10 0.	8.41E-14	0.	0.	0.	0.	0.	0.	0.	0.
8 10.00 0.	7.93E-14	0.	0.	0.	0.	0.	0.	0.	0.
9 9.90 0.	7.74E-14	0.	0.	0.	0.	0.	0.	0.	0.
10 9.80 0.	7.40E-14	0.	0.	0.	0.	0.	0.	0.	0.
11 9.70 0.	6.91E-14	0.	0.	0.	0.	0.	0.	0.	0.
12 9.60 0.	7.05E-14	0.	0.	0.	0.	0.	0.	0.	0.
13 9.50 0.	6.15E-14	0.	0.	0.	0.	0.	0.	0.	0.
14 9.40 0.	5.91E-14	0.	0.	0.	0.	0.	0.	0.	0.
15 9.30 0.	6.08E-14	0.	0.	0.	0.	0.	0.	0.	0.
16 9.20 0.	5.17E-14	0.	0.	0.	0.	0.	0.	0.	0.
17 9.10 0.	5.33E-14	0.	0.	0.	0.	0.	0.	0.	0.
18 9.00 0.	4.92E-14	0.	0.	0.	0.	0.	0.	0.	0.
19 8.90 0.	4.63E-14	0.	0.	0.	0.	0.	0.	0.	0.
20 8.80 0.	4.50E-14	0.	0.	0.	0.	0.	0.	0.	0.
21 8.70 0.	6.06E-14	0.	0.	0.	0.	0.	0.	0.	0.
22 8.60 0.	4.21E-14	0.	0.	0.	0.	0.	0.	0.	0.
23 8.50 0.	3.74E-14	0.	0.	0.	0.	0.	0.	0.	0.
24 8.40 0.	3.77E-14	0.	0.	0.	0.	0.	0.	0.	0.
25 8.30 0.	3.27E-14	0.	0.	0.	0.	0.	0.	0.	0.
26 8.20 0.	3.33E-14	0.	0.	0.	0.	0.	0.	0.	0.
27 8.10 0.	2.93E-14	0.	0.	0.	0.	0.	0.	0.	0.
28 8.00 0.	2.90E-14	0.	0.	0.	0.	0.	0.	0.	0.
29 7.90 0.	2.41E-14	0.	0.	0.	0.	0.	0.	0.	0.
30 7.80 0.	2.73E-14	0.	0.	0.	0.	0.	0.	0.	0.
31 7.70 0.	2.44E-14	0.	0.	0.	0.	0.	0.	0.	0.
32 7.60 0.	2.35E-14	0.	0.	0.	0.	0.	0.	0.	0.
33 7.50 0.	2.21E-14	0.	0.	0.	0.	0.	0.	0.	0.
34 7.40 0.	2.01E-14	0.	0.	0.	0.	0.	0.	0.	0.
35 7.30 0.	1.93E-14	0.	0.	0.	0.	0.	0.	0.	0.
36 7.20 0.	1.77E-14	0.	0.	0.	0.	0.	0.	0.	0.
37 7.10 0.	1.72E-14	0.	0.	0.	0.	0.	0.	0.	0.
38 7.00 7.14E-18	1.61E-14	0.	0.	0.	0.	0.	0.	0.	0.
39 6.90 1.41E-17	1.50E-14	0.	0.	0.	0.	0.	0.	0.	0.
40 6.80 1.22E-17	1.46E-14	0.	0.	0.	0.	0.	0.	0.	0.
41 6.70 9.01E-18	1.30E-14	0.	0.	0.	0.	0.	0.	0.	0.
42 6.60 5.54E-18	1.19E-14	0.	0.	0.	0.	0.	0.	0.	0.
43 6.50 3.23E-18	9.65E-15	0.	0.	0.	0.	0.	0.	0.	0.
44 6.40 1.00E-18	6.05E-15	0.	0.	0.	0.	0.	0.	0.	0.
45 6.30 1.11E-18	4.40E-15	0.	0.	0.	0.	0.	0.	0.	0.
46 6.20 5.03E-19	2.50E-15	0.	0.	0.	0.	0.	0.	0.	0.
47 6.10 2.34E-19	1.21E-15	0.	0.	0.	0.	0.	0.	0.	0.
48 6.00 8.95E-20	3.11E-16	0.	0.	0.	0.	0.	0.	0.	0.
49 5.90 2.47E-20	2.23E-17	0.	0.	0.	0.	0.	0.	0.	0.
50 5.80 3.16E-21	5.46E-19	0.	0.	0.	0.	0.	0.	0.	0.
51 5.70 2.33E-22	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 2200. DENSITY (GM/CC) 1.293E-06 (18.0E-04 NORMAL)

PHOTON 02 3-R	M2	M2	M2	NO	NO	NO	NO	NO	0-	FREE-FREE	M	0	TOTAL AIR
ENERGY BANDS	1ST POS.	2ND POS.	1ST NEG.	BETA	GAMMA	VIB-ROT	2	PHOTO-DET (IONS)	P.E.	P.E.			
52	5.50	1.80E-23	0.	0.	1.02E-15	6.54E-15	0.	0.	4.26E-09	3.70E-08	1.50E-05	6.12E-06	2.50E-05
53	5.50	0.	0.	0.	1.25E-15	4.08E-15	0.	0.	4.26E-09	3.70E-08	1.50E-05	6.12E-06	2.50E-05
54	5.50	0.	0.	0.	1.17E-15	5.08E-15	0.	0.	4.31E-09	3.92E-08	1.70E-05	6.37E-06	2.75E-05
55	5.50	0.	0.	0.	1.20E-15	6.28E-15	0.	0.	4.33E-09	4.14E-08	1.13E-05	8.30E-06	2.19E-05
56	5.50	0.	0.	0.	1.30E-15	5.00E-15	0.	0.	4.36E-09	4.39E-08	1.17E-05	8.10E-06	2.23E-05
57	5.50	0.	0.	0.	1.35E-15	6.35E-15	0.	0.	4.40E-09	4.60E-08	1.22E-05	8.20E-06	2.31E-05
58	5.50	1.40E-16	0.	0.	1.35E-15	6.35E-15	0.	0.	4.45E-09	4.95E-08	1.24E-05	8.50E-06	2.35E-05
59	4.50	1.40E-16	0.	0.	1.35E-15	6.35E-15	0.	0.	4.47E-09	5.26E-08	1.31E-05	8.50E-06	2.41E-05
60	4.50	1.40E-16	0.	0.	1.40E-15	6.30E-15	0.	0.	4.51E-09	5.60E-08	1.36E-05	8.65E-06	2.50E-05
61	4.70	9.60E-16	0.	0.	1.40E-15	6.30E-15	0.	0.	4.55E-09	5.97E-08	1.42E-05	8.85E-06	2.70E-05
62	4.50	1.34E-15	0.	0.	1.53E-15	9.20E-15	0.	0.	4.50E-09	6.37E-08	1.55E-05	7.02E-06	2.84E-05
63	4.50	1.44E-15	0.	1.62E-15	1.42E-15	4.00E-15	0.	0.	4.62E-09	6.81E-08	1.50E-05	7.22E-06	2.90E-05
64	4.50	1.57E-15	0.	4.67E-15	1.44E-15	2.72E-15	0.	0.	4.68E-09	7.29E-08	1.67E-05	7.37E-06	3.10E-05
65	4.30	1.50E-15	0.	1.08E-14	1.39E-15	1.73E-15	0.	0.	4.69E-09	7.81E-08	1.77E-05	7.99E-06	3.31E-05
66	4.20	1.42E-15	0.	4.95E-14	1.47E-15	1.10E-15	0.	0.	4.73E-09	8.39E-08	1.87E-05	7.81E-06	3.49E-05
67	4.10	1.34E-15	0.	2.33E-14	1.44E-15	3.34E-16	0.	0.	4.79E-09	9.02E-08	1.97E-05	7.79E-06	3.65E-05
68	4.00	1.29E-15	0.	7.10E-14	1.43E-15	2.31E-16	0.	0.	4.77E-09	9.72E-08	2.00E-05	8.00E-06	3.40E-05
69	3.80	1.08E-15	0.	3.45E-14	1.36E-15	9.28E-17	0.	0.	4.78E-09	1.05E-07	2.09E-05	8.23E-06	3.53E-05
70	3.70	1.10E-15	0.	5.90E-14	1.71E-15	1.43E-15	0.	0.	4.73E-09	1.14E-07	1.97E-05	8.22E-06	3.43E-05
71	3.70	1.08E-15	0.	5.62E-14	1.72E-15	0.	0.	4.68E-09	1.23E-07	1.97E-05	8.11E-06	3.60E-05	
72	3.60	9.80E-16	0.	4.20E-14	1.37E-15	0.	0.	4.30E-09	1.34E-07	2.10E-05	5.23E-06	3.97E-05	
73	3.60	9.37E-16	0.	5.43E-14	1.11E-15	0.	0.	3.90E-09	1.44E-07	2.23E-05	5.23E-06	4.20E-05	
74	3.50	8.74E-16	0.	3.61E-14	1.27E-15	1.25E-15	0.	0.	3.30E-09	1.60E-07	2.43E-05	6.27E-06	4.65E-05
75	3.30	7.06E-16	0.	3.80E-14	4.55E-11	1.05E-15	0.	0.	2.31E-09	1.75E-07	2.63E-05	8.33E-06	5.60E-05
76	3.20	6.25E-16	0.	2.88E-14	6.93E-11	1.05E-15	0.	0.	2.31E-09	1.92E-07	2.85E-05	7.43E-06	5.52E-05
77	3.10	5.00E-16	0.	1.95E-14	2.82E-11	1.04E-15	0.	0.	2.32E-09	2.12E-07	3.00E-05	8.03E-06	6.00E-05
78	3.00	5.54E-16	0.	1.51E-14	4.30E-11	9.94E-16	0.	0.	2.32E-09	2.14E-07	3.12E-05	8.33E-06	6.53E-05
79	2.80	4.74E-16	0.	7.71E-15	2.31E-11	7.88E-16	0.	0.	2.32E-09	2.59E-07	3.57E-05	9.52E-06	7.00E-05
80	2.80	5.00E-16	0.	3.72E-15	1.60E-11	5.60E-16	0.	0.	2.33E-09	2.89E-07	3.85E-05	1.01E-05	7.34E-05
81	2.70	3.31E-16	0.	1.70E-15	2.82E-11	3.10E-16	0.	0.	2.33E-09	3.23E-07	3.30E-05	1.09E-05	7.70E-05
82	2.60	1.61E-16	0.	0.39E-16	2.16E-12	1.43E-16	0.	0.	2.33E-09	3.62E-07	3.33E-05	1.17E-05	8.43E-05
83	2.50	1.15E-17	0.	0.64E-17	2.12E-12	3.40E-17	0.	0.	2.33E-09	4.08E-07	4.09E-05	1.57E-05	8.93E-05
84	2.40	0.	3.74E-15	0.	1.57E-12	3.77E-18	0.	0.	2.33E-09	4.63E-07	3.74E-05	9.82E-06	9.27E-05
85	2.30	0.	1.87E-14	0.	0.	0.	0.	0.	2.31E-09	5.27E-07	4.47E-05	1.00E-05	1.00E-04
86	2.20	0.	2.91E-14	0.	0.	0.	0.	0.	2.30E-09	6.33E-07	5.23E-05	1.26E-05	1.25E-04
87	2.10	0.	2.91E-14	0.	0.	0.	0.	0.	2.29E-09	6.95E-07	6.92E-05	1.40E-05	1.44E-04
88	2.00	0.	5.60E-14	0.	0.	0.	0.	0.	2.28E-09	8.06E-07	6.83E-05	1.64E-05	1.65E-04
89	1.90	0.	6.81E-14	0.	0.	0.	0.	0.	2.18E-09	9.44E-07	7.70E-05	1.94E-05	1.92E-04
90	1.80	0.	5.80E-14	0.	0.	0.	0.	0.	2.04E-09	1.12E-06	9.20E-05	2.36E-05	2.27E-04
91	1.70	0.	6.62E-14	0.	0.	0.	0.	0.	1.92E-09	1.33E-06	1.09E-04	2.66E-05	2.71E-04
92	1.60	0.	5.60E-14	0.	0.	0.	0.	0.	1.63E-09	1.60E-06	1.26E-04	3.37E-05	3.21E-04
93	1.50	0.	5.60E-14	0.	0.	0.	0.	0.	7.39E-10	1.96E-06	1.61E-04	4.76E-05	3.90E-04
94	1.40	0.	5.50E-14	0.	0.	0.	0.	0.	0.	2.41E-06	1.92E-04	4.87E-05	4.82E-04
95	1.30	0.	4.20E-14	0.	0.	0.	0.	0.	0.	3.80E-06	2.65E-04	5.94E-05	6.27E-04
96	1.20	0.	4.60E-14	0.	0.	0.	0.	0.	0.	3.86E-06	2.87E-04	6.40E-05	7.36E-04
97	1.10	0.	3.90E-14	0.	0.	0.	0.	0.	0.	5.06E-06	3.53E-04	8.00E-05	9.39E-04
98	1.00	0.	3.67E-14	0.	0.	0.	0.	0.	0.	6.79E-06	4.27E-04	9.14E-05	1.20E-03
99	0.90	0.	3.01E-14	0.	0.	0.	0.	0.	0.	9.40E-06	4.92E-04	1.72E-04	1.54E-03
100	0.80	0.	1.41E-14	0.	0.	0.	0.	0.	0.	1.35E-05	5.65E-04	1.23E-04	2.04E-03
101	0.70	0.	3.24E-15	0.	0.	0.	0.	0.	0.	2.05E-05	6.09E-04	1.23E-04	2.70E-03
102	0.60	0.	7.50E-16	0.	0.	0.	0.	0.	0.	3.31E-05	6.21E-04	1.30E-04	4.07E-03

TEMPERATURE (DEGREES K) 2200. DENSITY (GM/CC) 1.293E-07 (10.0E-05 NORMAL)

PHOTON ID	ENERGY	BAIRS	N2 1ST POS.	N2 2ND POS.	N2+ 1ST NRB.	NO DETA	NO GAMMA	NO VTB-ROT	NB	O- PHOTO-DET	FREE+FREE P.E.	N P.E.	TOTAL AIR
92	3.40	1.30E-27	0.	0.	0.	1.00E-19	6.93E-19	0.	0.	5.40E-12	5.50E-08	2.70E-07	2.40E-08 4.00E-07
93	3.50	0.	0.	0.	0.	1.32E-19	5.43E-19	0.	0.	5.43E-12	5.81E-08	2.93E-07	7.60E-06 4.27E-07
94	3.60	0.	0.	0.	0.	1.24E-19	5.30E-19	0.	0.	5.40E-12	6.14E-08	3.09E-07	7.74E-08 4.67E-07
95	3.70	0.	0.	0.	0.	1.27E-19	6.60E-19	0.	0.	5.40E-12	6.50E-08	3.24E-07	7.90E-08 4.60E-07
96	3.80	0.	0.	0.	0.	1.30E-19	5.20E-19	0.	0.	5.50E-12	6.00E-08	3.40E-07	8.00E-08 4.00E-07
97	3.90	0.	0.	0.	0.	1.30E-19	6.73E-19	0.	0.	5.57E-12	7.10E-08	3.54E-07	8.29E-08 5.11E-07
98	4.00	1.05E-28	0.	0.	0.	1.37E-19	6.43E-19	0.	0.	5.65E-12	7.75E-08	3.72E-07	8.43E-07 5.14E-07
99	4.10	8.50E-28	0.	0.	0.	1.43E-19	7.13E-19	0.	0.	5.67E-12	8.24E-08	3.80E-07	8.23E-08 5.53E-07
100	4.20	8.70E-28	0.	0.	0.	1.55E-19	6.77E-19	0.	0.	5.71E-12	8.70E-08	4.05E-07	8.44E-08 5.70E-07
101	4.30	1.20E-19	0.	0.	0.	1.57E-19	6.10E-19	0.	0.	5.74E-12	9.35E-08	4.29E-07	8.71E-08 6.09E-07
102	4.40	1.67E-19	0.	0.	0.	1.62E-19	5.61E-19	0.	0.	5.81E-12	9.60E-08	4.50E-07	9.00E-08 6.40E-07
103	4.50	1.70E-19	0.	1.47E-19	0.	1.51E-19	4.25E-19	0.	0.	5.84E-12	1.07E-07	4.99E-07	9.24E-08 6.80E-07
104	4.60	1.93E-19	0.	4.2E-19	0.	1.43E-19	2.80E-19	0.	0.	5.90E-12	1.14E-07	5.20E-07	9.57E-08 7.10E-07
105	4.70	1.65E-19	0.	1.48E-19	0.	1.40E-19	1.84E-19	0.	0.	5.95E-12	1.22E-07	5.52E-07	9.65E-08 7.10E-07
106	4.80	1.75E-19	0.	1.48E-19	0.	1.40E-19	1.84E-19	0.	0.	6.00E-12	1.31E-07	5.80E-07	9.70E-08 8.07E-07
107	4.90	1.64E-19	0.	2.13E-19	0.	1.55E-19	3.90E-20	0.	0.	6.02E-12	1.41E-07	6.29E-07	6.12E-08 8.20E-07
108	4.10	1.55E-19	0.	6.90E-19	0.	1.51E-19	2.65E-20	0.	0.	6.04E-12	1.52E-07	6.59E-07	6.41E-08 8.71E-07
109	3.90	1.54E-19	0.	3.13E-19	0.	1.42E-19	9.81E-21	0.	0.	6.02E-12	1.64E-07	6.53E-07	6.50E-08 9.93E-07
110	3.80	1.40E-19	0.	5.07E-19	0.	1.50E-19	0.	0.	0.	6.05E-12	1.70E-07	6.90E-07	6.93E-08 9.47E-07
111	3.70	1.34E-19	0.	5.15E-19	0.	1.50E-19	0.	0.	0.	5.96E-12	1.93E-07	7.32E-07	7.40E-08 1.00E-06
112	3.60	1.22E-19	0.	3.89E-19	0.	1.45E-19	0.	0.	0.	5.93E-12	2.10E-07	7.72E-07	8.80E-08 1.06E-06
113	3.50	1.10E-19	0.	4.90E-19	0.	1.77E-19	0.	0.	0.	5.90E-12	2.29E-07	8.10E-07	8.70E-08 1.13E-06
114	3.40	1.00E-19	0.	3.20E-19	0.	1.52E-19	0.	0.	0.	5.92E-12	2.50E-07	8.70E-07	9.50E-08 1.22E-06
115	3.30	0.72E-20	0.	3.90E-19	0.	1.60E-19	0.	0.	0.	5.94E-12	2.74E-07	9.22E-07	1.03E-07 1.30E-06
116	3.20	7.21E-20	0.	2.95E-19	0.	1.54E-19	0.	0.	0.	5.93E-12	3.01E-07	9.90E-07	1.06E-07 1.90E-06
117	3.10	7.51E-20	0.	2.65E-19	0.	1.61E-19	1.40E-19	0.	0.	5.93E-12	3.31E-07	9.90E-07	1.06E-07 1.90E-06
118	3.00	6.93E-20	0.	2.35E-19	0.	1.63E-19	1.40E-19	0.	0.	5.93E-12	3.61E-07	9.90E-07	1.06E-07 1.90E-06
119	2.90	6.06E-20	0.	2.05E-19	0.	1.65E-19	1.40E-19	0.	0.	5.93E-12	3.91E-07	9.90E-07	1.06E-07 1.90E-06
120	2.80	5.19E-20	0.	1.75E-19	0.	1.67E-19	1.40E-19	0.	0.	5.93E-12	4.21E-07	9.90E-07	1.06E-07 1.90E-06
121	2.70	4.99E-20	0.	1.61E-19	0.	1.69E-19	1.40E-19	0.	0.	5.93E-12	4.51E-07	9.90E-07	1.06E-07 1.90E-06
122	2.60	4.09E-20	0.	1.35E-19	0.	1.71E-19	1.40E-19	0.	0.	5.93E-12	4.81E-07	9.90E-07	1.06E-07 1.90E-06
123	2.50	3.41E-21	0.	1.09E-19	0.	1.73E-19	1.40E-19	0.	0.	5.93E-12	5.11E-07	9.90E-07	1.06E-07 1.90E-06
124	2.40	0.	0.	0.	0.	1.75E-19	1.40E-19	0.	0.	5.93E-12	5.41E-07	9.90E-07	1.06E-07 1.90E-06
125	2.30	0.	0.	0.	0.	1.77E-19	1.40E-19	0.	0.	5.93E-12	5.71E-07	9.90E-07	1.06E-07 1.90E-06
126	2.20	0.	0.	0.	0.	1.79E-19	1.40E-19	0.	0.	5.93E-12	6.01E-07	9.90E-07	1.06E-07 1.90E-06
127	2.10	0.	0.	0.	0.	1.81E-19	1.40E-19	0.	0.	5.93E-12	6.31E-07	9.90E-07	1.06E-07 1.90E-06
128	2.00	0.	0.	0.	0.	1.83E-19	1.40E-19	0.	0.	5.93E-12	6.61E-07	9.90E-07	1.06E-07 1.90E-06
129	1.90	0.	0.	0.	0.	1.85E-19	1.40E-19	0.	0.	5.93E-12	6.91E-07	9.90E-07	1.06E-07 1.90E-06
130	1.80	0.	0.	0.	0.	1.87E-19	1.40E-19	0.	0.	5.93E-12	7.21E-07	9.90E-07	1.06E-07 1.90E-06
131	1.70	0.	0.	0.	0.	1.89E-19	1.40E-19	0.	0.	5.93E-12	7.51E-07	9.90E-07	1.06E-07 1.90E-06
132	1.60	0.	0.	0.	0.	1.91E-19	1.40E-19	0.	0.	5.93E-12	7.81E-07	9.90E-07	1.06E-07 1.90E-06
133	1.50	0.	0.	0.	0.	1.93E-19	1.40E-19	0.	0.	5.93E-12	8.11E-07	9.90E-07	1.06E-07 1.90E-06
134	1.40	0.	0.	0.	0.	1.95E-19	1.40E-19	0.	0.	5.93E-12	8.41E-07	9.90E-07	1.06E-07 1.90E-06
135	1.30	0.	0.	0.	0.	1.97E-19	1.40E-19	0.	0.	5.93E-12	8.71E-07	9.90E-07	1.06E-07 1.90E-06
136	1.20	0.	0.	0.	0.	1.99E-19	1.40E-19	0.	0.	5.93E-12	9.01E-07	9.90E-07	1.06E-07 1.90E-06
137	1.10	0.	0.	0.	0.	2.01E-19	1.40E-19	0.	0.	5.93E-12	9.31E-07	9.90E-07	1.06E-07 1.90E-06
138	1.00	0.	0.	0.	0.	2.03E-19	1.40E-19	0.	0.	5.93E-12	9.61E-07	9.90E-07	1.06E-07 1.90E-06
139	0.90	0.	0.	0.	0.	2.05E-19	1.40E-19	0.	0.	5.93E-12	9.91E-07	9.90E-07	1.06E-07 1.90E-06
140	0.80	0.	0.	0.	0.	2.07E-19	1.40E-19	0.	0.	5.93E-12	1.02E-06	9.90E-07	1.06E-07 1.90E-06
141	0.70	0.	0.	0.	0.	2.09E-19	1.40E-19	0.	0.	5.93E-12	1.05E-06	9.90E-07	1.06E-07 1.90E-06
142	0.60	0.	0.	0.	0.	2.11E-19	1.40E-19	0.	0.	5.93E-12	1.08E-06	9.90E-07	1.06E-07 1.90E-06

ABSORPTION COEFFICIENT OF HEATED AIR (INVERSE CM.)									
TEMPERATURE (DEGREES C) 22000. DENSITY (GM/CC) 1.293E-08 (1.0E-05 NORMAL)									
PHOTON ENERGY E.V.	Q2 5-M BANDS	Q2 5-M CONT.	Q2 5-M NO. 1	NO DATA	NO GAMMA	NO 2	Q- PHOTO-DET (1000)	Q- FREE-FREE P.E.	TOTAL AIR P.E.
1 10.70 0.	0.	0.	3.40E-22	0.	0.	0.	7.23E-15	1.04E-10	1.55E-09
2 10.80 0.	0.	0.	3.21E-22	0.	0.	0.	7.40E-15	1.09E-10	1.54E-09
3 10.90 0.	0.	0.	3.27E-22	0.	0.	0.	7.50E-15	1.07E-10	1.57E-09
4 10.40 0.	0.	0.	3.15E-22	0.	0.	0.	7.59E-15	2.01E-10	1.91E-09
5 10.30 0.	0.	0.	2.79E-22	0.	0.	0.	7.66E-15	2.07E-10	1.91E-09
6 10.20 0.	0.	0.	2.91E-22	0.	0.	0.	7.37E-15	2.13E-10	1.92E-09
7 10.10 0.	0.	0.	2.76E-22	0.	0.	0.	7.30E-15	2.19E-10	1.93E-09
8 10.00 0.	0.	0.	2.47E-22	0.	0.	0.	7.39E-15	2.24E-10	1.94E-09
9 9.90 0.	0.	0.	2.59E-22	0.	0.	0.	7.11E-15	2.35E-10	1.95E-09
10 9.80 0.	0.	0.	2.43E-22	0.	0.	0.	7.42E-15	2.40E-10	1.97E-09
11 9.70 0.	0.	0.	2.14E-22	0.	0.	0.	7.42E-15	2.40E-10	1.97E-09
12 9.60 0.	0.	0.	2.32E-22	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
13 9.50 0.	0.	0.	2.02E-22	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
14 9.40 0.	0.	0.	1.94E-22	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
15 9.30 0.	0.	0.	2.00E-22	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
16 9.20 0.	0.	0.	1.70E-22	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
17 9.10 0.	0.	0.	1.79E-22	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
18 9.00 0.	0.	0.	1.62E-22	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
19 8.90 0.	0.	0.	1.57E-22	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
20 8.80 0.	0.	0.	1.50E-22	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
21 8.70 0.	0.	0.	1.33E-22	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
22 8.60 0.	0.	0.	1.30E-22	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
23 8.50 0.	0.	0.	1.24E-22	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
24 8.40 0.	0.	0.	1.24E-22	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
25 8.30 0.	0.	0.	1.07E-22	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
26 8.20 0.	0.	0.	9.62E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
27 8.10 0.	0.	0.	9.77E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
28 8.00 0.	0.	0.	0.54E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
29 7.90 0.	0.	0.	0.94E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
30 7.80 0.	0.	0.	0.01E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
31 7.70 0.	0.	0.	1.70E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
32 7.60 0.	0.	0.	7.25E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
33 7.50 0.	0.	0.	6.68E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
34 7.40 0.	0.	0.	6.35E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
35 7.30 0.	0.	0.	5.02E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
36 7.20 0.	0.	0.	5.66E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
37 7.10 0.	0.	0.	5.25E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
38 7.00 1.03E-25	0.	0.	4.91E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
39 6.90 2.04E-25	0.	0.	4.91E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
40 6.80 1.77E-25	0.	0.	4.91E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
41 6.70 1.31E-25	0.	0.	4.91E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
42 6.60 0.03E-26	0.	0.	3.90E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
43 6.50 4.69E-26	0.	0.	3.17E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
44 6.40 2.72E-26	0.	0.	2.95E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
45 6.30 1.68E-26	0.	0.	1.45E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
46 6.20 7.32E-27	0.	0.	0.22E-24	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
47 6.10 3.41E-27	0.	0.	3.96E-24	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
48 6.00 1.44E-27	0.	0.	3.21E-24	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
49 5.90 3.58E-28	0.	0.	7.33E-24	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
50 5.80 4.58E-29	0.	0.	1.04E-23	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09
51 5.70 3.57E-30	0.	0.	0.01E-24	0.	0.	0.	7.40E-15	2.45E-10	1.97E-09

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 5-M		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.0E-05 NORMAL		0		TOTAL AIR		
ENERGY SAVERS	1ST POS.	2ND POS.	1ST DEG.	2ND DEG.	NO	NO	NO	0- PHOTO-DET (10MS)	FREE-FREE	N	0	
					NO	NO	NO	PHOTO-DET (10MS)	P.E.	P.E.	P.E.	
52	5.60	1.32E-31	0.	0.	7.02E-24	4.51E-23	0.	7.02E-15	1.32E-09	9.64E-09	1.59E-09	1.25E-08
53	5.80	0.	0.	0.	8.99E-24	4.19E-23	0.	7.80E-15	1.32E-09	1.87E-08	1.63E-09	1.32E-08
54	5.90	0.	0.	0.	8.06E-24	3.52E-23	0.	7.00E-15	1.52E-09	1.80E-08	1.69E-09	1.45E-08
55	5.94	0.	0.	0.	6.84E-24	3.33E-23	0.	7.95E-15	1.52E-09	1.14E-08	1.76E-09	1.37E-08
56	5.26	0.	0.	0.	9.08E-24	3.45E-23	0.	8.00E-15	1.62E-09	1.21E-08	1.83E-09	1.55E-08
57	5.10	0.	0.	0.	7.01E-24	4.37E-23	0.	8.07E-15	1.72E-09	1.27E-08	1.90E-09	1.60E-08
58	5.09	1.14E-24	0.	0.	8.30E-24	4.25E-23	0.	8.14E-15	1.82E-09	1.35E-08	1.66E-09	1.84E-08
59	4.96	5.55E-24	0.	0.	9.38E-24	4.06E-23	0.	8.22E-15	1.92E-09	1.39E-08	1.72E-09	1.80E-08
60	4.89	1.82E-23	0.	0.	1.01E-23	4.41E-23	0.	8.27E-15	2.02E-09	1.49E-08	1.72E-09	1.84E-08
61	4.70	1.40E-23	0.	0.	1.02E-23	4.06E-23	0.	8.34E-15	2.12E-09	1.54E-08	1.86E-09	1.95E-08
62	4.60	1.45E-23	0.	0.	1.06E-23	3.45E-23	0.	8.41E-15	2.12E-09	1.66E-08	1.94E-09	2.09E-08
63	4.20	2.09E-23	0.	5.32E-24	9.82E-24	2.74E-23	0.	8.48E-15	2.32E-09	1.75E-08	2.02E-09	2.23E-08
64	4.40	2.72E-23	0.	1.93E-23	9.45E-24	1.80E-23	0.	8.55E-15	2.32E-09	1.90E-08	2.13E-09	2.30E-08
65	4.30	2.18E-23	0.	5.34E-23	9.25E-24	1.20E-23	0.	8.61E-15	2.32E-09	2.01E-08	2.22E-09	2.52E-08
66	4.20	2.05E-23	0.	1.82E-23	1.32E-23	1.05E-24	0.	8.68E-15	3.10E-09	2.15E-08	1.82E-09	2.64E-08
67	4.10	1.95E-23	0.	7.80E-23	1.01E-23	2.32E-24	0.	8.72E-15	3.32E-09	2.20E-08	1.95E-09	2.82E-08
68	4.01	1.82E-23	0.	2.38E-23	9.81E-24	1.71E-24	0.	8.75E-15	3.50E-09	2.43E-08	2.09E-09	3.00E-08
69	3.80	1.57E-23	0.	1.15E-22	9.24E-24	6.39E-25	0.	8.72E-15	3.80E-09	2.56E-08	2.22E-09	3.17E-08
70	3.80	1.75E-23	0.	1.35E-22	1.00E-23	0.	0.	8.88E-15	4.20E-09	2.71E-08	2.36E-09	3.56E-08
71	3.70	1.57E-23	0.	1.84E-22	1.00E-23	6.75E-24	0.	8.95E-15	4.50E-09	2.86E-08	2.52E-09	3.55E-08
72	3.50	1.43E-23	0.	1.30E-22	9.04E-24	9.45E-24	0.	8.00E-15	4.95E-09	2.99E-08	2.69E-09	3.76E-08
73	3.50	1.56E-23	0.	1.70E-22	1.56E-24	7.64E-24	0.	7.35E-15	5.30E-09	3.15E-08	2.88E-09	3.98E-08
74	3.40	1.70E-23	0.	1.10E-22	6.73E-24	8.62E-24	0.	4.23E-15	5.90E-09	1.11E-08	2.77E-09	1.98E-08
75	3.30	1.02E-23	0.	1.21E-22	9.80E-24	7.32E-24	0.	4.35E-15	6.45E-09	1.06E-08	2.97E-09	2.53E-08
76	3.20	9.06E-24	0.	8.15E-23	1.49E-24	7.44E-24	0.	4.24E-15	7.00E-09	1.23E-08	2.92E-09	2.46E-08
77	3.10	8.81E-24	0.	6.40E-23	4.35E-24	7.15E-24	0.	4.25E-15	7.70E-09	1.41E-08	2.77E-09	2.46E-08
78	3.00	8.03E-24	0.	3.90E-23	9.25E-24	6.87E-24	0.	4.26E-15	8.45E-09	1.58E-08	2.45E-09	2.93E-08
79	2.90	6.88E-24	0.	2.53E-23	4.98E-24	5.30E-24	0.	4.27E-15	9.50E-09	1.75E-08	2.69E-09	2.97E-08
80	2.80	7.25E-24	0.	1.25E-23	3.37E-24	3.07E-24	0.	4.27E-15	1.05E-08	1.92E-08	2.94E-09	3.20E-08
81	2.70	4.70E-24	0.	5.75E-24	4.34E-24	2.10E-24	0.	4.27E-15	1.15E-08	2.10E-08	2.64E-09	3.55E-08
82	2.65	2.33E-24	0.	2.70E-24	4.84E-24	9.90E-25	0.	4.27E-15	1.32E-08	2.27E-08	2.82E-09	3.89E-08
83	2.50	1.66E-25	0.	2.80E-25	4.56E-24	2.40E-25	0.	4.27E-15	1.50E-08	2.45E-08	3.17E-09	4.27E-08
84	2.40	0.	1.39E-23	0.	3.39E-24	2.60E-26	0.	4.27E-15	1.70E-08	2.85E-08	3.66E-09	4.86E-08
85	2.30	0.	3.51E-23	0.	0.	0.	0.	4.27E-15	1.92E-08	3.15E-08	4.17E-09	5.50E-08
86	2.20	0.	9.56E-23	0.	0.	0.	0.	4.27E-15	2.21E-08	3.50E-08	4.71E-09	6.18E-08
87	2.10	0.	9.56E-23	0.	0.	0.	0.	4.27E-15	2.54E-08	3.86E-08	5.25E-09	6.93E-08
88	2.00	0.	2.44E-22	0.	0.	0.	0.	4.07E-15	2.95E-08	4.21E-08	5.80E-09	7.75E-08
89	1.90	0.	2.44E-22	0.	0.	0.	0.	3.91E-15	3.45E-08	4.13E-08	6.42E-09	9.68E-08
90	1.80	0.	1.93E-22	0.	0.	0.	0.	3.74E-15	4.00E-08	4.39E-08	6.71E-09	6.94E-08
91	1.70	0.	2.17E-22	0.	0.	0.	0.	3.53E-15	4.60E-08	4.67E-08	5.49E-09	8.68E-08
92	1.60	0.	1.95E-22	0.	0.	0.	0.	2.80E-15	5.80E-08	5.95E-08	6.15E-09	9.43E-08
93	1.50	0.	1.84E-22	0.	0.	0.	0.	1.30E-15	7.15E-08	7.30E-08	7.18E-09	1.11E-07
94	1.40	0.	1.84E-22	0.	0.	0.	0.	0.	8.00E-08	3.46E-08	8.72E-09	1.20E-07
95	1.30	0.	1.41E-22	0.	0.	0.	0.	0.	1.10E-07	4.00E-08	8.60E-09	1.59E-07
96	1.20	0.	1.46E-22	0.	0.	0.	0.	0.	1.41E-07	4.55E-08	9.17E-09	1.63E-07
97	1.10	0.	1.11E-22	0.	0.	0.	0.	0.	1.84E-07	5.00E-08	9.66E-09	2.12E-07
98	1.00	0.	1.10E-22	0.	0.	0.	0.	0.	2.40E-07	5.45E-08	1.04E-08	2.80E-07
99	0.90	0.	9.87E-23	0.	0.	0.	0.	0.	3.40E-07	6.15E-08	1.12E-08	3.77E-07
100	0.80	0.	4.83E-23	0.	0.	0.	0.	0.	4.85E-07	7.00E-08	1.30E-08	5.31E-07
101	0.70	0.	1.80E-23	0.	0.	0.	0.	0.	7.37E-07	8.00E-08	1.13E-08	7.77E-07
102	0.60	0.	2.47E-24	0.	0.	0.	0.	0.	1.19E-06	9.20E-08	1.20E-08	1.23E-06

[illegible][illegible]

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREE K) 2299.0										SENSITIVITY (CM/CC) 1.293E-09 (1.0E-06 NORMAL)									
PHOTON Q2 S-R ENERGY BANDS		M2 1ST POS. 2ND POS. 1ST NEG.		M2+ BEVA		NO GAMMA		NO VIB.ROT		NO 2		O- PHOTO-DET (IONS)		FREE-FREE P.E.		J P.E.		TOTAL AIR	
52	5.00 3.35E-36	9.	0.	7.10E-20	4.61E-20	0.	0.	4.42E-10	2.17E-11	1.66E-10	3.78E-11	2.35E-10	4.90E-10	2.29E-11	1.76E-10	3.94E-11	2.30E-10	4.92E-10	2.42E-11
53	5.30 0.	0.	0.	8.79E-20	4.21E-20	0.	0.	4.50E-10	2.42E-11	1.76E-10	4.08E-11	2.40E-10	4.92E-10	2.42E-11	1.76E-10	4.08E-11	2.40E-10	4.92E-10	2.42E-11
54	5.60 0.	0.	0.	9.12E-20	3.98E-20	0.	0.	4.58E-10	2.56E-11	1.87E-10	4.30E-11	2.57E-10	4.58E-10	2.56E-11	1.87E-10	4.30E-11	2.57E-10	4.58E-10	2.56E-11
55	5.90 8.	0.	0.	9.41E-20	4.43E-20	0.	0.	4.58E-10	2.72E-11	1.94E-10	4.62E-11	2.70E-10	4.58E-10	2.72E-11	1.94E-10	4.62E-11	2.70E-10	4.58E-10	2.72E-11
56	6.20 0.	0.	0.	9.71E-20	4.37E-20	0.	0.	4.62E-10	2.88E-11	2.01E-10	4.76E-11	2.85E-10	4.62E-10	2.88E-11	2.01E-10	4.76E-11	2.85E-10	4.62E-10	2.88E-11
57	6.50 0.	0.	0.	1.00E-20	4.30E-20	0.	0.	4.66E-10	3.04E-11	2.08E-10	4.90E-11	3.03E-10	4.66E-10	3.04E-11	2.08E-10	4.90E-11	3.03E-10	4.66E-10	3.04E-11
58	6.80 0.	0.	0.	1.03E-20	4.16E-20	0.	0.	4.69E-10	3.20E-11	2.15E-10	5.04E-11	3.24E-10	4.69E-10	3.20E-11	2.15E-10	5.04E-11	3.24E-10	4.69E-10	3.20E-11
59	7.10 0.	0.	0.	1.06E-20	4.02E-20	0.	0.	4.73E-10	3.36E-11	2.22E-10	5.18E-11	3.39E-10	4.73E-10	3.36E-11	2.22E-10	5.18E-11	3.39E-10	4.73E-10	3.36E-11
60	7.40 0.	0.	0.	1.09E-20	3.88E-20	0.	0.	4.77E-10	3.52E-11	2.29E-10	5.32E-11	3.57E-10	4.77E-10	3.52E-11	2.29E-10	5.32E-11	3.57E-10	4.77E-10	3.52E-11
61	7.70 0.	0.	0.	1.12E-20	3.74E-20	0.	0.	4.81E-10	3.68E-11	2.36E-10	5.46E-11	3.71E-10	4.81E-10	3.68E-11	2.36E-10	5.46E-11	3.71E-10	4.81E-10	3.68E-11
62	8.00 0.	0.	0.	1.15E-20	3.60E-20	0.	0.	4.85E-10	3.84E-11	2.43E-10	5.60E-11	3.85E-10	4.85E-10	3.84E-11	2.43E-10	5.60E-11	3.85E-10	4.85E-10	3.84E-11
63	8.30 0.	0.	0.	1.18E-20	3.46E-20	0.	0.	4.89E-10	4.00E-11	2.50E-10	5.74E-11	4.01E-10	4.89E-10	4.00E-11	2.50E-10	5.74E-11	4.01E-10	4.89E-10	4.00E-11
64	8.60 0.	0.	0.	1.21E-20	3.32E-20	0.	0.	4.93E-10	4.16E-11	2.57E-10	5.88E-11	4.13E-10	4.93E-10	4.16E-11	2.57E-10	5.88E-11	4.13E-10	4.93E-10	4.16E-11
65	8.90 0.	0.	0.	1.24E-20	3.18E-20	0.	0.	4.97E-10	4.32E-11	2.64E-10	6.02E-11	4.29E-10	4.97E-10	4.32E-11	2.64E-10	6.02E-11	4.29E-10	4.97E-10	4.32E-11
66	9.20 0.	0.	0.	1.27E-20	3.04E-20	0.	0.	5.01E-10	4.48E-11	2.71E-10	6.16E-11	4.45E-10	5.01E-10	4.48E-11	2.71E-10	6.16E-11	4.45E-10	5.01E-10	4.48E-11
67	9.50 0.	0.	0.	1.30E-20	2.90E-20	0.	0.	5.05E-10	4.64E-11	2.78E-10	6.30E-11	4.61E-10	5.05E-10	4.64E-11	2.78E-10	6.30E-11	4.61E-10	5.05E-10	4.64E-11
68	9.80 0.	0.	0.	1.33E-20	2.76E-20	0.	0.	5.09E-10	4.80E-11	2.85E-10	6.44E-11	4.77E-10	5.09E-10	4.80E-11	2.85E-10	6.44E-11	4.77E-10	5.09E-10	4.80E-11
69	1.00 3.45E-38	0.	0.	1.36E-20	2.62E-20	0.	0.	5.13E-10	4.96E-11	2.92E-10	6.58E-11	4.93E-10	5.13E-10	4.96E-11	2.92E-10	6.58E-11	4.93E-10	5.13E-10	4.96E-11
70	1.03 3.30E-38	0.	0.	1.39E-20	2.48E-20	0.	0.	5.17E-10	5.12E-11	3.00E-10	6.72E-11	5.09E-10	5.17E-10	5.12E-11	3.00E-10	6.72E-11	5.09E-10	5.17E-10	5.12E-11
71	1.06 3.15E-38	0.	0.	1.42E-20	2.34E-20	0.	0.	5.21E-10	5.28E-11	3.07E-10	6.86E-11	5.21E-10	5.21E-10	5.28E-11	3.07E-10	6.86E-11	5.21E-10	5.21E-10	5.28E-11
72	1.09 3.00E-38	0.	0.	1.45E-20	2.20E-20	0.	0.	5.25E-10	5.44E-11	3.14E-10	7.00E-11	5.25E-10	5.25E-10	5.44E-11	3.14E-10	7.00E-11	5.25E-10	5.25E-10	5.44E-11
73	1.12 2.85E-38	0.	0.	1.48E-20	2.06E-20	0.	0.	5.29E-10	5.60E-11	3.21E-10	7.14E-11	5.29E-10	5.29E-10	5.60E-11	3.21E-10	7.14E-11	5.29E-10	5.29E-10	5.60E-11
74	1.15 2.70E-38	0.	0.	1.51E-20	1.92E-20	0.	0.	5.33E-10	5.76E-11	3.28E-10	7.28E-11	5.33E-10	5.33E-10	5.76E-11	3.28E-10	7.28E-11	5.33E-10	5.33E-10	5.76E-11
75	1.18 2.55E-38	0.	0.	1.54E-20	1.78E-20	0.	0.	5.37E-10	5.92E-11	3.35E-10	7.42E-11	5.37E-10	5.37E-10	5.92E-11	3.35E-10	7.42E-11	5.37E-10	5.37E-10	5.92E-11
76	1.21 2.40E-38	0.	0.	1.57E-20	1.64E-20	0.	0.	5.41E-10	6.08E-11	3.42E-10	7.56E-11	5.41E-10	5.41E-10	6.08E-11	3.42E-10	7.56E-11	5.41E-10	5.41E-10	6.08E-11
77	1.24 2.25E-38	0.	0.	1.60E-20	1.50E-20	0.	0.	5.45E-10	6.24E-11	3.49E-10	7.70E-11	5.45E-10	5.45E-10	6.24E-11	3.49E-10	7.70E-11	5.45E-10	5.45E-10	6.24E-11
78	1.27 2.10E-38	0.	0.	1.63E-20	1.36E-20	0.	0.	5.49E-10	6.40E-11	3.56E-10	7.84E-11	5.49E-10	5.49E-10	6.40E-11	3.56E-10	7.84E-11	5.49E-10	5.49E-10	6.40E-11
79	1.30 1.95E-38	0.	0.	1.66E-20	1.22E-20	0.	0.	5.53E-10	6.56E-11	3.63E-10	7.98E-11	5.53E-10	5.53E-10	6.56E-11	3.63E-10	7.98E-11	5.53E-10	5.53E-10	6.56E-11
80	1.33 1.80E-38	0.	0.	1.69E-20	1.08E-20	0.	0.	5.57E-10	6.72E-11	3.70E-10	8.12E-11	5.57E-10	5.57E-10	6.72E-11	3.70E-10	8.12E-11	5.57E-10	5.57E-10	6.72E-11
81	1.36 1.65E-38	0.	0.	1.72E-20	9.4E-21	0.	0.	5.61E-10	6.88E-11	3.77E-10	8.26E-11	5.61E-10	5.61E-10	6.88E-11	3.77E-10	8.26E-11	5.61E-10	5.61E-10	6.88E-11
82	1.39 1.50E-38	0.	0.	1.75E-20	8.0E-21	0.	0.	5.65E-10	7.04E-11	3.84E-10	8.40E-11	5.65E-10	5.65E-10	7.04E-11	3.84E-10	8.40E-11	5.65E-10	5.65E-10	7.04E-11
83	1.42 1.35E-38	0.	0.	1.78E-20	6.6E-21	0.	0.	5.69E-10	7.20E-11	3.91E-10	8.54E-11	5.69E-10	5.69E-10	7.20E-11	3.91E-10	8.54E-11	5.69E-10	5.69E-10	7.20E-11
84	1.45 1.20E-38	0.	0.	1.81E-20	5.2E-21	0.	0.	5.73E-10	7.36E-11	3.98E-10	8.68E-11	5.73E-10	5.73E-10	7.36E-11	3.98E-10	8.68E-11	5.73E-10	5.73E-10	7.36E-11
85	1.48 1.05E-38	0.	0.	1.84E-20	3.8E-21	0.	0.	5.77E-10	7.52E-11	4.05E-10	8.82E-11	5.77E-10	5.77E-10	7.52E-11	4.05E-10	8.82E-11	5.77E-10	5.77E-10	7.52E-11
86	1.51 9.0E-38	0.	0.	1.87E-20	2.4E-21	0.	0.	5.81E-10	7.68E-11	4.12E-10	8.96E-11	5.81E-10	5.81E-10	7.68E-11	4.12E-10	8.96E-11	5.81E-10	5.81E-10	7.68E-11
87	1.54 7.5E-38	0.	0.	1.90E-20	1.0E-21	0.	0.	5.85E-10	7.84E-11	4.19E-10	9.10E-11	5.85E-10	5.85E-10	7.84E-11	4.19E-10	9.10E-11	5.85E-10	5.85E-10	7.84E-11
88	1.57 6.0E-38	0.	0.	1.93E-20	0.	0.	0.	5.89E-10	8.00E-11	4.26E-10	9.24E-11	5.89E-10	5.89E-10	8.00E-11	4.26E-10	9.24E-11	5.89E-10	5.89E-10	8.00E-11
89	1.60 4.5E-38	0.	0.	1.96E-20	0.	0.	0.	5.93E-10	8.16E-11	4.33E-10	9.38E-11	5.93E-10	5.93E-10	8.16E-11	4.33E-10	9.38E-11	5.93E-10	5.93E-10	8.16E-11
90	1.63 3.0E-38	0.	0.	1.99E-20	0.	0.	0.	5.97E-10	8.32E-11	4.40E-10	9.52E-11	5.97E-10	5.97E-10	8.32E-11	4.40E-10	9.52E-11	5.97E-10	5.97E-10	8.32E-11
91	1.66 1.5E-38	0.	0.	2.02E-20	0.	0.	0.	6.01E-10	8.48E-11	4.47E-10	9.66E-11	6.01E-10	6.01E-10	8.48E-11	4.47E-10	9.66E-11	6.01E-10	6.01E-10	8.48E-11
92	1.69 0.	0.	0.	2.05E-20	0.	0.	0.	6.05E-10	8.64E-11	4.54E-10	9.80E-11	6.05E-10	6.05E-10	8.64E-11	4.54E-10	9.80E-11	6.05E-10	6.05E-10	8.64E-11
93	1.72 0.	0.	0.	2.08E-20	0.	0.	0.	6.09E-10	8.80E-11	4.61E-10	9.94E-11	6.09E-10	6.09E-10	8.80E-11	4.61E-10	9.94E-11	6.09E-10	6.09E-10	8.80E-11
94	1.75 0.	0.	0.	2.11E-20	0.	0.	0.	6.13E-10	8.96E-11	4.68E-10	1.00E-10	6.13E-10	6.13E-10	8.96E-11	4.68E-10	1.00E-10	6.13E-10	6.13E-10	8.96E-11
95	1.78 0.	0.	0.	2.14E-20	0.	0.	0.	6.17E-10	9.12E-11	4.75E-10	1.01E-10	6.17E-10	6.17E-10	9.12E-11	4.75E-10	1.01E-10	6.17E-10	6.17E-10	9.12E-11
96	1.81 0.	0.	0.	2.17E-20	0.	0.	0.	6.21E-10	9.28E-11	4.82E-10	1.02E-10	6.21E-10	6.21E-10	9.28E-11	4.82E-10	1.02E-10	6.21E-10	6.21E-10	9.28E-11
97	1.84 0.	0.	0.	2.20E-20	0.	0.	0.	6.25E-10	9.44E-11	4.89E-10	1.03E-10	6.25E-10	6.25E-10	9.44E-11	4.89E-10	1.03E-10	6.25E-10	6.25E-10	9.44E-11
98	1.87 0.	0.	0.	2.23E-20	0.	0.	0.	6.29E-10	9.60E-11	4.96E-10	1.04E-10	6.29E-10	6.29E-10	9.60E-11	4.96E-10	1.04E-10	6.29E-10	6.29E-10	9.60E-11
99	1.90 0.	0.	0.	2.26E-20	0.	0.	0.	6.33E-10	9.76E-11	5.03E-10	1.05E-10	6.33E-10	6.33E-10	9.76E-11	5.03E-10	1.05E-10	6.33E-10	6.33E-10	9.76E-11
100	1.93 0.	0.	0.	2.29E-20	0.	0.	0.	6.37E-10	9.92E-11	5.10E-10	1.06E-10	6.37E-10	6.37E-10	9.92E-11	5.10E-10	1.06E-10	6.37E-10	6.37E-10	9.92E-11
101	1.96 0.	0.	0.	2.32E-20	0.	0.	0.	6.41E-10	1.00E-10	5.17E-10	1.07E-10	6.41E-10	6.41E-10	1.00E-10	5.17E-10	1.07E-10	6.41E-10	6.41E-10	1.00E-10
102	1.99 0.	0.	0.	2.35E-20	0.	0.	0.	6.45E-10	1.01E-10	5.24E-10	1.08E-10	6.45E-10	6.45E-10	1.01E-10	5.24E-10	1.08E-10	6.45E-10	6.45E-10	1.01E-10
103	2.02 0.	0.	0.	2.38E-20	0.	0.	0.	6.49E-10	1.02E-10	5.31E-10	1.09E-10	6.49E-10	6.49E-10	1.02E-10	5.31E-10	1.09E-10	6.49E-10	6.49E-10	1.02E-10
104	2.05 0.	0.	0.	2.41E-20	0.	0.	0.	6.53E-10	1.03E-10	5.38E-10	1.10E-10	6.53E-10	6.53E-10	1.03E-10	5.38E-10	1.10E-10	6.53E-10	6.53E-10	1.03E-10
105	2.08 0.	0.																	

ASSUMPTION COEFFICIENT OF HEATED AIR (INVERSE CM.)									
TEMPERATURE (DEGREES R) 2300.									
SENSITIVITY (CM/CC) 1.29E-02 (1.0E 01 NORMAL)									
PHOTON 02 5-R	02 3-R	02 1-R	02 0-R	02 0-R	02 0-R	02 0-R	02 0-R	02 0-R	02 0-R
ENERGY RAYS	CONF.	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8
E.V.									
1 10.79 6-	0-	2.00E-01	0-	0-	0-	0-	0-	0-	0-
2 10.79 6-	0-	1.89E-01	0-	0-	0-	0-	0-	0-	0-
3 10.79 6-	0-	1.80E-01	0-	0-	0-	0-	0-	0-	0-
4 10.79 6-	0-	1.72E-01	0-	0-	0-	0-	0-	0-	0-
5 10.79 6-	0-	1.65E-01	0-	0-	0-	0-	0-	0-	0-
6 10.79 6-	0-	1.59E-01	0-	0-	0-	0-	0-	0-	0-
7 10.79 6-	0-	1.54E-01	0-	0-	0-	0-	0-	0-	0-
8 10.79 6-	0-	1.49E-01	0-	0-	0-	0-	0-	0-	0-
9 10.79 6-	0-	1.45E-01	0-	0-	0-	0-	0-	0-	0-
10 10.79 6-	0-	1.41E-01	0-	0-	0-	0-	0-	0-	0-
11 10.79 6-	0-	1.37E-01	0-	0-	0-	0-	0-	0-	0-
12 10.79 6-	0-	1.33E-01	0-	0-	0-	0-	0-	0-	0-
13 10.79 6-	0-	1.30E-01	0-	0-	0-	0-	0-	0-	0-
14 10.79 6-	0-	1.27E-01	0-	0-	0-	0-	0-	0-	0-
15 10.79 6-	0-	1.24E-01	0-	0-	0-	0-	0-	0-	0-
16 10.79 6-	0-	1.21E-01	0-	0-	0-	0-	0-	0-	0-
17 10.79 6-	0-	1.18E-01	0-	0-	0-	0-	0-	0-	0-
18 10.79 6-	0-	1.15E-01	0-	0-	0-	0-	0-	0-	0-
19 10.79 6-	0-	1.12E-01	0-	0-	0-	0-	0-	0-	0-
20 10.79 6-	0-	1.09E-01	0-	0-	0-	0-	0-	0-	0-
21 10.79 6-	0-	1.06E-01	0-	0-	0-	0-	0-	0-	0-
22 10.79 6-	0-	1.03E-01	0-	0-	0-	0-	0-	0-	0-
23 10.79 6-	0-	1.00E-01	0-	0-	0-	0-	0-	0-	0-
24 10.79 6-	0-	9.75E-02	0-	0-	0-	0-	0-	0-	0-
25 10.79 6-	0-	9.50E-02	0-	0-	0-	0-	0-	0-	0-
26 10.79 6-	0-	9.25E-02	0-	0-	0-	0-	0-	0-	0-
27 10.79 6-	0-	9.00E-02	0-	0-	0-	0-	0-	0-	0-
28 10.79 6-	0-	8.75E-02	0-	0-	0-	0-	0-	0-	0-
29 10.79 6-	0-	8.50E-02	0-	0-	0-	0-	0-	0-	0-
30 10.79 6-	0-	8.25E-02	0-	0-	0-	0-	0-	0-	0-
31 10.79 6-	0-	8.00E-02	0-	0-	0-	0-	0-	0-	0-
32 10.79 6-	0-	7.75E-02	0-	0-	0-	0-	0-	0-	0-
33 10.79 6-	0-	7.50E-02	0-	0-	0-	0-	0-	0-	0-
34 10.79 6-	0-	7.25E-02	0-	0-	0-	0-	0-	0-	0-
35 10.79 6-	0-	7.00E-02	0-	0-	0-	0-	0-	0-	0-
36 10.79 6-	0-	6.75E-02	0-	0-	0-	0-	0-	0-	0-
37 10.79 6-	0-	6.50E-02	0-	0-	0-	0-	0-	0-	0-
38 10.79 6-	0-	6.25E-02	0-	0-	0-	0-	0-	0-	0-
39 10.79 6-	0-	6.00E-02	0-	0-	0-	0-	0-	0-	0-
40 10.79 6-	0-	5.75E-02	0-	0-	0-	0-	0-	0-	0-
41 10.79 6-	0-	5.50E-02	0-	0-	0-	0-	0-	0-	0-
42 10.79 6-	0-	5.25E-02	0-	0-	0-	0-	0-	0-	0-
43 10.79 6-	0-	5.00E-02	0-	0-	0-	0-	0-	0-	0-
44 10.79 6-	0-	4.75E-02	0-	0-	0-	0-	0-	0-	0-
45 10.79 6-	0-	4.50E-02	0-	0-	0-	0-	0-	0-	0-
46 10.79 6-	0-	4.25E-02	0-	0-	0-	0-	0-	0-	0-
47 10.79 6-	0-	4.00E-02	0-	0-	0-	0-	0-	0-	0-
48 10.79 6-	0-	3.75E-02	0-	0-	0-	0-	0-	0-	0-
49 10.79 6-	0-	3.50E-02	0-	0-	0-	0-	0-	0-	0-
50 10.79 6-	0-	3.25E-02	0-	0-	0-	0-	0-	0-	0-
51 10.79 6-	0-	3.00E-02	0-	0-	0-	0-	0-	0-	0-

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON D2 S-R		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.2936-02 (1.0E 01 NORMAL)		FREE-FREE		TOTAL AIR	
ENERGY BANDS	1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	BETA	GAMMA	VIB-ROT	NO	NO	PHOTO-DET (1CM)	P.E.
52 5.60 1.04E-11	0.	0.	0.	0.	1.38E-03	0.07E-03	0.	0.	0.	5.92E 00	6.94E 00
53 5.90 0.	0.	0.	0.	0.	1.08E-03	0.25E-03	0.	0.	0.	5.96E 00	7.33E 00
54 5.40 0.	0.	0.	0.	0.	1.59E-03	0.94E-03	0.	0.	0.	5.99E 00	7.52E 00
55 5.30 0.	0.	0.	0.	0.	1.83E-03	1.35E-03	0.	0.	0.	6.03E 00	8.20E 00
56 5.20 0.	0.	0.	0.	0.	1.70E-03	0.84E-03	0.	0.	0.	6.06E 00	8.09E 00
57 5.10 0.	0.	0.	0.	0.	1.70E-03	0.70E-03	0.	0.	0.	6.12E 00	9.22E 00
58 5.00 1.40E-04	0.	0.	0.	0.	1.64E-03	0.39E-03	0.	0.	0.	6.17E 00	9.70E 00
59 5.00 3.60E-04	0.	0.	0.	0.	1.85E-03	0.31E-03	0.	0.	0.	6.22E 00	1.04E 01
60 4.80 7.05E-04	0.	0.	0.	0.	2.00E-03	0.07E-03	0.	0.	0.	6.27E 00	1.11E 01
61 4.70 9.71E-04	0.	0.	0.	0.	2.03E-03	0.07E-03	0.	0.	0.	6.32E 00	1.16E 01
62 4.60 1.36E-03	0.	0.	0.	0.	2.11E-03	0.31E-03	0.	0.	0.	6.37E 00	1.20E 01
63 4.50 1.46E-03	0.	0.	0.	0.	1.97E-03	0.59E-03	0.	0.	0.	6.42E 00	1.35E 01
64 4.40 1.58E-03	0.	0.	0.	0.	1.99E-03	1.79E-03	0.	0.	0.	6.47E 00	1.44E 01
65 4.30 1.52E-03	0.	0.	0.	0.	1.93E-03	2.45E-03	0.	0.	0.	6.53E 00	1.55E 01
66 4.20 1.44E-03	0.	0.	0.	0.	2.08E-03	1.63E-03	0.	0.	0.	6.58E 00	1.66E 01
67 4.10 1.37E-03	0.	0.	0.	0.	2.08E-03	0.81E-04	0.	0.	0.	6.60E 00	1.99E 01
68 4.00 1.28E-03	0.	0.	0.	0.	1.98E-03	3.48E-04	0.	0.	0.	6.63E 00	1.93E 01
69 3.90 1.11E-03	0.	0.	0.	0.	1.07E-03	1.27E-04	0.	0.	0.	6.68E 00	2.08E 01
70 3.80 1.22E-03	0.	0.	0.	0.	1.20E-01	1.54E-03	0.	0.	0.	6.80E 00	2.08E 01
71 3.70 1.11E-03	0.	0.	0.	0.	1.06E-01	1.70E-03	0.	0.	0.	6.90E 00	2.45E 01
72 3.60 1.02E-03	0.	0.	0.	0.	0.84E-02	1.95E-03	0.	0.	0.	6.97E 00	2.45E 01
73 3.50 9.47E-04	0.	0.	0.	0.	1.10E-01	1.50E-03	0.	0.	0.	6.99E 00	2.60E 01
74 3.40 9.04E-04	0.	0.	0.	0.	7.80E-02	2.49E-02	0.	0.	0.	7.06E 00	3.17E 01
75 3.30 7.31E-04	0.	0.	0.	0.	7.96E-02	0.81E-02	0.	0.	0.	7.21E 00	3.71E 01
76 3.20 6.50E-04	0.	0.	0.	0.	5.38E-02	1.32E-01	0.	0.	0.	7.32E 00	4.40E 01
77 3.10 6.33E-04	0.	0.	0.	0.	4.94E-02	3.97E-02	0.	0.	0.	7.32E 00	4.40E 01
78 3.00 5.70E-04	0.	0.	0.	0.	2.44E-02	0.30E-02	0.	0.	0.	7.32E 00	5.48E 01
79 2.90 4.97E-04	0.	0.	0.	0.	1.09E-02	4.95E-02	0.	0.	0.	7.32E 00	5.48E 01
80 2.80 3.25E-04	0.	0.	0.	0.	8.14E-03	3.80E-02	0.	0.	0.	7.32E 00	5.48E 01
81 2.70 3.49E-04	0.	0.	0.	0.	3.85E-03	2.09E-02	0.	0.	0.	7.32E 00	5.48E 01
82 2.60 1.71E-04	0.	0.	0.	0.	1.03E-03	4.14E-03	0.	0.	0.	7.32E 00	5.48E 01
83 2.50 1.22E-05	0.	0.	0.	0.	1.07E-04	4.14E-03	0.	0.	0.	7.32E 00	5.48E 01
84 2.40 0.	0.	0.	0.	0.	3.83E-03	5.52E-04	0.	0.	0.	7.32E 00	5.48E 01
85 2.30 0.	0.	0.	0.	0.	2.80E-02	0.	0.	0.	0.	7.32E 00	5.48E 01
86 2.20 0.	0.	0.	0.	0.	6.14E-02	0.	0.	0.	0.	7.32E 00	5.48E 01
87 2.10 0.	0.	0.	0.	0.	1.25E-01	0.	0.	0.	0.	7.32E 00	5.48E 01
88 2.00 0.	0.	0.	0.	0.	1.42E-01	0.	0.	0.	0.	7.32E 00	5.48E 01
89 1.90 0.	0.	0.	0.	0.	1.23E-01	0.	0.	0.	0.	7.32E 00	5.48E 01
90 1.80 0.	0.	0.	0.	0.	1.08E-01	0.	0.	0.	0.	7.32E 00	5.48E 01
91 1.70 0.	0.	0.	0.	0.	1.05E-01	0.	0.	0.	0.	7.32E 00	5.48E 01
92 1.60 0.	0.	0.	0.	0.	1.19E-01	0.	0.	0.	0.	7.32E 00	5.48E 01
93 1.50 0.	0.	0.	0.	0.	1.16E-01	0.	0.	0.	0.	7.32E 00	5.48E 01
94 1.40 0.	0.	0.	0.	0.	0.91E-02	0.	0.	0.	0.	7.32E 00	5.48E 01
95 1.30 0.	0.	0.	0.	0.	0.90E-02	0.	0.	0.	0.	7.32E 00	5.48E 01
96 1.20 0.	0.	0.	0.	0.	0.32E-02	0.	0.	0.	0.	7.32E 00	5.48E 01
97 1.10 0.	0.	0.	0.	0.	7.87E-02	0.	0.	0.	0.	7.32E 00	5.48E 01
98 1.00 0.	0.	0.	0.	0.	6.20E-02	0.	0.	0.	0.	7.32E 00	5.48E 01
99 0.90 0.	0.	0.	0.	0.	2.94E-02	0.	0.	0.	0.	7.32E 00	5.48E 01
100 0.80 0.	0.	0.	0.	0.	6.73E-03	0.	0.	0.	0.	7.32E 00	5.48E 01
101 0.70 0.	0.	0.	0.	0.	1.63E-03	0.	0.	0.	0.	7.32E 00	5.48E 01
102 0.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	7.32E 00	5.48E 01

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.793E-03 (1.0E 00 NORMAL)		D- FREE-FREE		4		0		TOTAL AIR	
PHOTON OF S-R		NO. 1		NO. 2		PHOTO-DET (10MS)		P.E.		P.E.		P.E.	
ENERGY BANDS		NO. 1		NO. 2		PHOTO-DET (10MS)		P.E.		P.E.		P.E.	
E.V.		NO. 1		NO. 2		PHOTO-DET (10MS)		P.E.		P.E.		P.E.	
1 10.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2 10.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3 10.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4 11.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5 11.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6 11.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7 11.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8 11.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9 11.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10 11.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11 11.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12 11.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13 11.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14 12.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15 12.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16 12.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17 12.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18 12.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19 12.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20 12.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21 12.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22 12.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23 12.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24 13.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25 13.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26 13.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27 13.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28 13.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29 13.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30 13.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31 13.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32 13.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33 13.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34 14.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35 14.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36 14.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37 14.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38 14.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39 14.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40 14.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41 14.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42 14.80	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43 14.90	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44 15.00	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45 15.10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46 15.20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47 15.30	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48 15.40	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49 15.50	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50 15.60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51 15.70	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

PHOTON Q2 3-9 ENERGY BANDS	H2 1ST POS.	H2 2ND POS.	H2 1ST WFO.	H2 2ND WFO.	BETA	NO GAMMA	NO WIB-ROT	NO 2	0- PHOTO-DET	FREE-FREE (IONS)	N P.E.	0 P.E.	TOTAL AID				
52	5.00	6.23E-14	0.	0.	7.53E-06	4.84E-05	0.	0.	1.22E-01	4.92E-01	1.00E	00	5.04E-01	2.26E	00		
53	5.50	0.	0.	0.	9.21E-04	4.47E-05	0.	0.	1.23E-01	5.19E-01	1.00E	00	5.92E-01	2.32E	00		
54	5.80	0.	0.	0.	2.68E-05	3.70E-05	0.	0.	1.24E-01	5.49E-01	1.11E	00	5.90E-01	2.38E	00		
55	5.90	0.	0.	0.	6.89E-04	1.28E-05	0.	0.	1.25E-01	5.61E-01	1.14E	00	6.00E-01	2.40E	00		
56	5.90	0.	0.	0.	9.60E-04	3.74E-05	0.	0.	1.25E-01	6.16E-01	1.17E	00	6.16E-01	2.53E	00		
57	5.10	0.00E-07	0.	0.	9.72E-04	4.74E-05	0.	0.	1.26E-01	6.93E-01	1.21E	00	6.25E-01	2.51E	00		
58	5.10	0.00E-07	0.	0.	8.97E-04	4.74E-05	0.	0.	1.27E-01	6.94E-01	1.24E	00	6.25E-01	2.51E	00		
59	4.90	2.21E-04	0.	0.	1.01E-05	5.00E-05	0.	0.	1.28E-01	7.37E-01	1.20E	00	6.46E-01	2.80E	00		
60	4.90	4.22E-04	0.	0.	1.00E-05	4.81E-05	0.	0.	1.30E-01	7.85E-01	1.34E	00	6.80E-01	2.91E	00		
61	4.70	5.82E-04	0.	0.	1.11E-05	4.40E-05	0.	0.	1.31E-01	8.37E-01	1.39E	00	6.78E-01	3.04E	00		
62	4.80	0.18E-06	0.	0.	1.15E-05	3.99E-05	0.	0.	1.32E-01	8.93E-01	1.45E	00	6.97E-01	3.17E	00		
63	4.90	0.73E-06	0.	1.75E-05	1.07E-05	3.02E-05	0.	0.	1.33E-01	9.94E-01	1.53E	00	7.16E-01	3.33E	00		
64	4.90	0.49E-04	0.	4.91E-05	0.90E-05	2.05E-05	0.	0.	1.34E-01	1.02E	00	1.61E	00	7.36E-01	3.50E	00	
65	4.80	0.15E-06	0.	1.75E-05	1.03E-05	3.31E-05	0.	0.	1.35E-01	1.09E	00	1.70E	00	7.57E-01	3.68E	00	
66	4.20	0.62E-06	0.	5.28E-04	1.11E-05	0.90E-06	0.	0.	1.36E-01	1.10E	00	1.79E	00	7.78E-01	3.88E	00	
67	4.10	0.28E-06	0.	7.60E-04	1.11E-05	2.53E-06	0.	0.	1.37E-01	1.26E	00	1.80E	00	7.73E-01	4.05E	00	
68	4.00	0.74E-06	0.	7.60E-04	1.00E-05	1.89E-06	0.	0.	1.37E-01	1.36E	00	1.97E	00	8.07E-01	3.80E	00	
69	3.90	0.63E-06	0.	3.64E-04	1.02E-05	0.92E-07	0.	0.	1.38E-01	1.47E	00	1.97E	00	8.21E-01	4.00E	00	
70	3.80	0.33E-06	0.	3.64E-04	1.10E-05	0.	0.	0.	1.39E-01	1.60E	00	1.98E	00	8.39E-01	4.16E	00	
71	3.70	0.65E-06	0.	3.95E-04	3.08E-04	9.75E-04	0.	0.	1.34E-01	1.73E	00	1.80E	00	8.78E-01	4.43E	00	
72	3.60	0.18E-06	0.	4.45E-04	1.35E-03	1.05E-05	0.	0.	1.25E-01	1.88E	00	1.82E	00	9.52E-01	4.95E	00	
73	3.50	0.79E-06	0.	5.77E-04	2.57E-03	8.51E-06	0.	0.	1.15E-01	2.05E	00	1.94E	00	1.50E-01	4.88E	00	
74	3.40	0.94E-06	0.	3.07E-04	4.68E-04	9.61E-06	0.	0.	0.62E-02	2.24E	00	2.15E	00	6.26E-01	5.88E	00	
75	3.30	0.43E-06	0.	3.95E-04	1.64E-03	7.81E-06	0.	0.	0.63E-02	2.46E	00	2.36E	00	6.03E-01	5.97E	00	
76	3.20	0.89E-06	0.	2.67E-04	2.45E-03	8.33E-06	0.	0.	0.64E-02	2.70E	00	2.58E	00	7.42E-01	6.09E	00	
77	3.10	0.85E-06	0.	2.16E-04	3.30E-04	8.85E-06	0.	0.	0.64E-02	2.97E	00	2.80E	00	8.02E-01	6.95E	00	
78	3.00	0.47E-06	0.	1.81E-04	3.54E-03	7.74E-06	0.	0.	0.67E-02	3.29E	00	3.03E	00	8.25E-01	7.95E	00	
79	2.90	0.90E-06	0.	0.37E-05	0.28E-04	6.09E-06	0.	0.	0.68E-02	3.64E	00	3.28E	00	9.31E-01	7.92E	00	
80	2.80	0.31E-06	0.	0.84E-05	0.05E-04	4.40E-06	0.	0.	0.69E-02	4.06E	00	3.57E	00	1.01E	00	8.70E	00
81	2.70	2.05E-06	0.	1.91E-05	7.21E-04	2.50E-06	0.	0.	0.69E-02	4.93E	00	3.80E	00	1.09E	00	9.97E	00
82	2.60	1.05E-06	0.	9.09E-06	7.81E-05	1.14E-06	0.	0.	0.69E-02	5.09E	00	4.21E	00	1.18E	00	1.95E	01
83	2.50	7.25E-08	0.	9.25E-07	7.68E-05	2.77E-07	0.	0.	0.69E-02	5.74E	00	4.81E	00	7.31E-01	1.4E	01	
84	2.40	0.	0.	3.08E-05	3.01E-08	0.	0.	0.	0.69E-02	6.50E	00	5.59E	00	9.33E-01	1.31E	01	
85	2.30	0.	0.	1.15E-04	0.	0.	0.	0.	0.64E-02	7.40E	00	6.99E	00	1.09E	00	1.36E	01
86	2.20	0.	0.	3.08E-04	0.	0.	0.	0.	0.61E-02	8.47E	00	6.81E	00	1.29E	00	1.58E	01
87	2.10	0.	0.	3.08E-04	0.	0.	0.	0.	0.59E-02	9.70E	00	6.09E	00	1.50E	00	1.83E	01
88	2.00	0.	0.	6.15E-04	0.	0.	0.	0.	0.57E-02	1.13E	01	7.99E	00	1.71E	00	2.11E	01
89	1.90	0.	0.	7.85E-04	0.	0.	0.	0.	0.13E-02	1.33E	01	9.19E	00	2.00E	00	2.46E	01
90	1.80	0.	0.	6.12E-04	0.	0.	0.	0.	5.66E-02	1.57E	01	1.18E	01	2.45E	00	2.93E	01
91	1.70	0.	0.	6.85E-04	0.	0.	0.	0.	5.52E-02	1.87E	01	1.33E	01	2.90E	00	3.51E	01
92	1.60	0.	0.	5.25E-04	0.	0.	0.	0.	4.67E-02	2.26E	01	1.56E	01	3.51E	00	4.17E	01
93	1.50	0.	0.	5.85E-04	0.	0.	0.	0.	2.12E-02	2.79E	01	2.03E	01	4.25E	00	5.21E	01
94	1.40	0.	0.	5.76E-04	0.	0.	0.	0.	0.	3.40E	01	2.53E	0.	5.09E	00	6.46E	01
95	1.30	0.	0.	4.42E-04	0.	0.	0.	0.	0.	4.26E	01	3.45E	01	6.74E	00	8.30E	01
96	1.20	0.	0.	4.22E-04	0.	0.	0.	0.	0.	5.45E	01	3.91E	01	6.74E	00	1.80E	02
97	1.10	0.	0.	4.16E-04	0.	0.	0.	0.	0.	7.13E	01	4.02E	01	6.74E	00	1.20E	02
98	1.00	0.	0.	3.81E-04	0.	0.	0.	0.	0.	9.98E	01	5.05E	01	9.02E	00	1.44E	02
99	0.90	0.	0.	3.15E-04	0.	0.	0.	0.	0.	1.33E	02	6.79E	01	1.13E	01	2.11E	02
100	0.80	0.	0.	1.45E-04	0.	0.	0.	0.	0.	1.91E	02	7.77E	01	1.28E	01	2.82E	02
101	0.70	0.	0.	3.24E-05	0.	0.	0.	0.	0.	2.90E	02	8.36E	01	1.38E	01	3.86E	02
102	0.60	0.	0.	8.14E-07	0.	0.	0.	0.	0.	4.60E	02	9.36E	01	1.43E	01	5.76E	02

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)
 TEMPERATURE (DEGREES K) 2300. DENSITY (GM/CC) 1.293E-04 (1.0E-01 NORMAL)

PHOTON ENERGY E.V.	QZ S-R CONT.	NZ B-N NO. 1	NO BETA	NO GAMMA	NO 2	Q- PHOTO-DET (IONS)	N P.E.	O P.E.	TOTAL AIR	
1 10.75	0	1.30E-06	0	0	0	9.72E-04	2.64E-03	7.35E-01	2.67E-02	7.65E-01
2 10.60	0	1.27E-06	0	0	0	9.72E-04	2.71E-03	6.88E-02	2.66E-02	9.03E-02
3 10.50	0	1.36E-06	0	0	0	9.72E-04	2.70E-03	6.83E-02	2.64E-02	9.09E-02
4 10.40	0	1.25E-06	0	0	0	9.74E-04	2.87E-03	6.80E-02	2.63E-02	9.07E-02
5 10.30	0	1.11E-06	0	0	0	9.77E-04	2.96E-03	6.80E-02	2.62E-02	9.06E-02
6 10.20	0	1.10E-06	0	0	0	9.79E-04	3.05E-03	6.89E-02	2.61E-02	9.08E-02
7 10.10	0	1.11E-06	0	0	0	9.80E-04	3.14E-03	6.87E-02	2.59E-02	9.07E-02
8 10.00	0	9.95E-07	0	0	0	9.81E-04	3.24E-03	6.75E-02	2.58E-02	9.04E-02
9 9.90	0	1.05E-06	0	0	0	9.83E-04	3.34E-03	6.77E-02	2.57E-02	9.07E-02
10 9.80	0	9.79E-07	0	0	0	9.85E-04	3.44E-03	6.80E-02	2.56E-02	9.08E-02
11 9.70	0	8.64E-07	0	0	0	9.88E-04	3.55E-03	6.80E-02	2.54E-02	9.08E-02
12 9.60	0	9.37E-07	0	0	0	9.88E-04	3.66E-03	6.82E-02	2.53E-02	9.08E-02
13 9.50	0	8.19E-07	0	0	0	9.90E-04	3.78E-03	6.83E-02	2.52E-02	9.03E-02
14 9.40	0	7.89E-07	0	0	0	9.94E-04	3.91E-03	6.85E-02	2.51E-02	9.05E-02
15 9.30	0	6.13E-07	0	0	0	9.97E-04	4.04E-03	6.87E-02	2.50E-02	9.07E-02
16 9.20	0	6.94E-07	0	0	0	1.00E-03	4.17E-03	6.89E-02	2.48E-02	9.09E-02
17 9.10	0	7.16E-07	0	0	0	1.00E-03	4.31E-03	6.77E-02	2.47E-02	9.08E-02
18 9.00	0	6.83E-07	0	0	0	1.01E-03	4.44E-03	6.77E-02	2.46E-02	9.08E-02
19 8.90	0	6.29E-07	0	0	0	1.01E-03	4.61E-03	6.77E-02	2.45E-02	9.09E-02
20 8.80	0	6.20E-07	0	0	0	1.01E-03	4.77E-03	6.78E-02	2.44E-02	9.08E-02
21 8.70	0	5.51E-07	0	0	0	1.02E-03	4.94E-03	6.78E-02	2.43E-02	9.01E-02
22 8.60	0	5.73E-07	0	0	0	1.02E-03	5.12E-03	6.76E-02	2.42E-02	9.07E-02
23 8.50	0	5.13E-07	0	0	0	1.03E-03	5.30E-03	6.70E-02	2.41E-02	9.04E-02
24 8.40	0	5.19E-07	0	0	0	1.03E-03	5.49E-03	6.81E-02	2.40E-02	9.06E-02
25 8.30	0	4.47E-07	0	0	0	1.04E-03	5.70E-03	6.82E-02	2.39E-02	9.09E-02
26 8.20	0	4.97E-07	0	0	0	1.05E-03	5.91E-03	6.84E-02	2.39E-02	9.02E-02
27 8.10	0	4.03E-07	0	0	0	1.05E-03	6.13E-03	6.85E-02	2.39E-02	9.06E-02
28 8.00	0	4.18E-07	0	0	0	1.05E-03	6.37E-03	6.87E-02	2.39E-02	9.04E-02
29 7.90	0	3.48E-07	0	0	0	1.06E-03	6.62E-03	6.89E-02	2.39E-02	9.05E-02
30 7.80	0	3.78E-07	0	0	0	1.06E-03	6.88E-03	6.91E-02	2.39E-02	9.10E-02
31 7.70	0	3.39E-07	0	0	0	1.07E-03	7.15E-03	6.94E-02	2.39E-02	9.15E-02
32 7.60	0	3.27E-07	0	1.01E-11	0	1.07E-03	7.44E-03	6.96E-02	2.39E-02	9.21E-02
33 7.50	0	3.08E-07	0	5.54E-11	0	1.08E-03	7.74E-03	6.96E-02	2.40E-02	9.24E-02
34 7.40	0	2.81E-07	0	5.24E-11	0	1.09E-03	8.07E-03	6.98E-02	2.40E-02	9.29E-02
35 7.30	0	2.71E-07	0	1.95E-09	0	1.09E-03	8.41E-03	6.98E-02	2.40E-02	9.35E-02
36 7.20	0	2.49E-07	0	5.52E-09	0	1.10E-03	8.76E-03	6.93E-02	2.40E-02	9.41E-02
37 7.10	0	2.43E-07	0	1.75E-08	0	1.11E-03	9.14E-03	6.96E-02	2.40E-02	9.46E-02
38 7.00	0	2.27E-07	0	3.24E-08	0	1.12E-03	9.54E-03	6.98E-02	2.40E-02	9.55E-02
39 6.90	0	2.12E-07	0	4.91E-08	0	1.12E-03	9.97E-03	6.93E-02	2.40E-02	9.62E-02
40 6.80	0	2.08E-07	0	7.97E-08	0	1.13E-03	1.04E-02	6.93E-02	2.40E-02	9.69E-02
41 6.70	0	1.85E-07	0	7.59E-08	0	1.14E-03	1.09E-02	6.96E-02	2.40E-02	9.77E-02
42 6.60	0	1.76E-07	0	6.73E-08	0	1.15E-03	1.14E-02	6.95E-02	2.41E-02	9.86E-02
43 6.50	0	1.38E-07	0	7.33E-08	0	1.16E-03	1.19E-02	6.95E-02	2.41E-02	9.95E-02
44 6.40	0	9.86E-08	0	2.74E-10	0	1.17E-03	1.25E-02	6.95E-02	2.42E-02	1.00E-02
45 6.30	0	6.37E-08	0	1.32E-09	0	1.18E-03	1.31E-02	6.93E-02	2.43E-02	7.16E-02
46 6.20	0	3.64E-08	0	1.91E-09	0	1.19E-03	1.38E-02	6.94E-02	2.44E-02	7.29E-02
47 6.10	0	1.76E-08	0	5.52E-09	0	1.20E-03	1.45E-02	6.93E-02	2.46E-02	7.42E-02
48 6.00	0	4.55E-08	0	5.47E-09	0	1.21E-03	1.52E-02	6.93E-02	2.48E-02	7.56E-02
49 5.90	0	3.27E-08	0	5.12E-09	0	1.21E-03	1.60E-02	6.95E-02	2.49E-02	7.71E-02
50 5.80	0	8.29E-08	0	1.13E-08	0	1.19E-03	1.69E-02	6.95E-02	2.51E-02	7.87E-02
51 5.70	0	2.59E-08	0	1.38E-08	0	1.12E-03	1.78E-02	6.91E-02	2.53E-02	8.03E-02

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)
TEMPERATURE (DEGREES K) 2300. DENSITY (GM/CC) 1.293E-04 (1.0E-01 NORMAL)

PHOTON OR S-R ENERGY BANDS	M2 1ST POS.	M2 2ND POS.	M2 1ST NEG.	M2 2ND NEG.	BETA	NO GAMMA	NO VIG-RO	NO 2	3- PHOTO-NET (IONS)	N P.E.	0 P.E.	TOTAL AIR
52 5.60 1.17E-10	0.	0.	0.	0.	1.21E-08	7.0E-04	0.	0.	1.04E-03	1.80E-02	3.66E-02	2.54E-02
53 5.30 0.	0.	0.	0.	0.	1.48E-08	7.1E-04	0.	0.	1.04E-03	1.98E-02	3.74E-02	2.57E-02
54 5.40 0.	0.	0.	0.	0.	1.40E-08	6.10E-04	0.	0.	1.05E-03	2.10E-02	3.83E-02	2.60E-02
55 5.30 0.	0.	0.	0.	0.	1.43E-08	7.0E-04	0.	0.	1.05E-03	2.22E-02	3.93E-02	2.63E-02
56 5.20 0.	0.	0.	0.	0.	1.56E-08	6.02E-04	0.	0.	1.06E-03	2.34E-02	4.03E-02	2.66E-02
57 5.10 0.	0.	0.	0.	0.	1.57E-08	7.44E-04	0.	0.	1.07E-03	2.50E-02	4.09E-02	2.71E-02
58 5.10 0.	0.	0.	0.	0.	1.49E-08	7.14E-04	0.	0.	1.08E-03	2.65E-02	4.19E-02	2.75E-02
59 5.20 1.67E-09	0.	0.	0.	0.	1.53E-08	8.18E-04	0.	0.	1.09E-03	2.82E-02	4.35E-02	2.80E-02
60 4.80 1.12E-09	0.	0.	0.	0.	1.74E-08	7.95E-04	0.	0.	1.10E-03	3.00E-02	4.49E-02	2.86E-02
61 4.70 1.09E-09	0.	0.	0.	0.	1.79E-08	7.09E-04	0.	0.	1.11E-03	3.20E-02	4.67E-02	2.94E-02
62 4.60 1.54E-09	0.	0.	0.	0.	1.85E-08	6.47E-04	0.	0.	1.12E-03	3.41E-02	4.87E-02	3.02E-02
63 4.50 1.64E-09	0.	0.	0.	0.	1.73E-08	4.86E-04	0.	0.	1.13E-03	3.64E-02	5.13E-02	3.10E-02
64 4.40 1.78E-09	0.	0.	0.	0.	1.75E-08	3.10E-04	0.	0.	1.13E-03	3.90E-02	5.43E-02	3.19E-02
65 4.30 1.71E-09	0.	0.	0.	0.	1.70E-08	2.11E-04	0.	0.	1.14E-03	4.19E-02	5.74E-02	3.28E-02
66 4.20 1.62E-09	0.	0.	0.	0.	1.79E-08	1.53E-04	0.	0.	1.15E-03	4.50E-02	6.06E-02	3.37E-02
67 4.10 1.54E-09	0.	0.	0.	0.	1.78E-08	4.06E-04	0.	0.	1.16E-03	4.84E-02	6.38E-02	3.45E-02
68 4.00 1.44E-09	0.	0.	0.	0.	1.74E-08	3.04E-04	0.	0.	1.16E-03	5.22E-02	6.70E-02	3.53E-02
69 3.90 1.25E-09	0.	0.	0.	0.	1.64E-08	1.12E-04	0.	0.	1.15E-03	5.64E-02	7.02E-02	3.61E-02
70 3.80 1.38E-09	0.	0.	0.	0.	8.21E-07	4.24E-06	1.48E-08	0.	1.15E-03	6.11E-02	7.35E-02	3.69E-02
71 3.70 1.25E-09	0.	0.	0.	0.	8.21E-07	2.16E-06	1.54E-08	0.	1.13E-03	6.45E-02	7.59E-02	3.77E-02
72 3.60 1.15E-09	0.	0.	0.	0.	8.20E-07	1.87E-06	1.59E-08	0.	1.09E-03	7.20E-02	8.03E-02	3.85E-02
73 3.50 1.09E-09	0.	0.	0.	0.	7.98E-07	1.62E-06	1.37E-08	0.	1.07E-03	7.72E-02	8.43E-02	3.93E-02
74 3.40 1.02E-09	0.	0.	0.	0.	5.35E-07	3.27E-06	1.55E-08	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
75 3.30 8.23E-09	0.	0.	0.	0.	5.43E-07	1.56E-06	1.75E-08	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
76 3.20 7.32E-09	0.	0.	0.	0.	3.69E-07	1.73E-06	1.54E-08	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
77 3.10 7.13E-09	0.	0.	0.	0.	2.91E-07	3.21E-06	1.50E-08	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
78 3.00 6.52E-09	0.	0.	0.	0.	1.91E-07	1.89E-06	1.25E-08	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
79 2.90 5.80E-09	0.	0.	0.	0.	1.58E-07	5.95E-06	9.82E-09	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
80 2.80 5.91E-09	0.	0.	0.	0.	5.98E-06	4.20E-06	7.09E-09	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
81 2.70 5.93E-09	0.	0.	0.	0.	2.44E-08	5.11E-06	6.03E-09	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
82 2.60 1.92E-09	0.	0.	0.	0.	1.24E-08	5.52E-07	1.93E-09	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
83 2.50 1.37E-10	0.	0.	0.	0.	1.24E-09	5.44E-07	4.75E-10	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
84 2.40 0.	0.	0.	0.	0.	3.50E-07	4.95E-11	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
85 2.30 0.	0.	0.	0.	0.	1.25E-07	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
86 2.20 0.	0.	0.	0.	0.	4.25E-07	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
87 2.10 0.	0.	0.	0.	0.	4.21E-07	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
88 2.00 0.	0.	0.	0.	0.	0.54E-07	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
89 1.90 0.	0.	0.	0.	0.	0.75E-07	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
90 1.80 0.	0.	0.	0.	0.	0.44E-07	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
91 1.70 0.	0.	0.	0.	0.	0.47E-07	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
92 1.60 0.	0.	0.	0.	0.	7.23E-07	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
93 1.50 0.	0.	0.	0.	0.	0.19E-07	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
94 1.40 0.	0.	0.	0.	0.	7.90E-07	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
95 1.30 0.	0.	0.	0.	0.	6.11E-07	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
96 1.20 0.	0.	0.	0.	0.	5.02E-07	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
97 1.10 0.	0.	0.	0.	0.	5.72E-07	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
98 1.00 0.	0.	0.	0.	0.	5.26E-07	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
99 0.90 0.	0.	0.	0.	0.	4.31E-07	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
100 0.80 0.	0.	0.	0.	0.	2.02E-07	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
101 0.70 0.	0.	0.	0.	0.	4.62E-08	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02
102 0.60 0.	0.	0.	0.	0.	1.12E-08	0.	0.	0.	9.61E-04	8.59E-02	7.15E-02	2.72E-02

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 2400.		DENSITY (GM/CC) 1.293E-05 (19.0E-03 NORMAL)		NO		0- FREE-FREE		M		TOTAL AIR		
PHOTON 02 S-R		02 S-R		NO		2 PHOTO-DEF (IONS)		P.E.		P.F.		
ENERGY HANDS		COMT.		NO		NO		NO		NO		
E.V.		NO. 1		DETA		GAMMA						
1 10.74 0.	0.	3.32E-10	0.	0.	0.	0.	0.	2.09E-06	4.29E-05	1.16E-02	4.97E-04	1.21E-02
2 10.84 0.	0.	3.07E-10	0.	0.	0.	0.	0.	2.09E-06	4.37E-05	1.24E-03	4.95E-04	1.74E-03
3 10.94 0.	0.	3.13E-10	0.	0.	0.	0.	0.	2.09E-06	4.40E-05	1.29E-03	4.92E-04	1.78E-03
4 10.94 0.	0.	3.37E-10	0.	0.	0.	0.	0.	2.10E-06	4.50E-05	1.26E-03	4.90E-04	1.76E-03
5 10.30 0.	0.	2.00E-10	0.	0.	0.	0.	0.	2.10E-06	4.70E-05	1.26E-03	4.88E-04	1.76E-03
6 10.20 0.	0.	2.00E-10	0.	0.	0.	0.	0.	2.10E-06	4.91E-05	1.27E-03	4.86E-04	1.77E-03
7 10.10 0.	0.	2.07E-10	0.	0.	0.	0.	0.	2.10E-06	5.04E-05	1.27E-03	4.84E-04	1.77E-03
8 10.00 0.	0.	2.40E-10	0.	0.	0.	0.	0.	2.11E-06	5.21E-05	1.11E-03	4.42E-04	1.61E-03
9 9.90 0.	0.	2.07E-10	0.	0.	0.	0.	0.	2.11E-06	5.37E-05	1.11E-03	4.39E-04	1.61E-03
10 9.80 0.	0.	2.36E-10	0.	0.	0.	0.	0.	2.11E-06	5.54E-05	1.12E-03	4.37E-04	1.61E-03
11 9.70 0.	0.	2.09E-10	0.	0.	0.	0.	0.	2.12E-06	5.70E-05	1.13E-03	4.35E-04	1.62E-03
12 9.60 0.	0.	2.20E-10	0.	0.	0.	0.	0.	2.13E-06	5.89E-05	1.13E-03	4.33E-04	1.62E-03
13 9.50 0.	0.	1.90E-10	0.	0.	0.	0.	0.	2.13E-06	6.09E-05	1.13E-03	4.31E-04	1.62E-03
14 9.40 0.	0.	1.91E-10	0.	0.	0.	0.	0.	2.13E-06	6.29E-05	1.13E-03	4.29E-04	1.63E-03
15 9.30 0.	0.	1.96E-10	0.	0.	0.	0.	0.	2.14E-06	6.49E-05	1.14E-03	4.27E-04	1.63E-03
16 9.20 0.	0.	1.83E-10	0.	0.	0.	0.	0.	2.15E-06	6.71E-05	1.14E-03	4.25E-04	1.64E-03
17 9.10 0.	0.	1.73E-10	0.	0.	0.	0.	0.	2.16E-06	6.94E-05	1.02E-04	4.23E-04	9.97E-04
18 9.00 0.	0.	1.60E-10	0.	0.	0.	0.	0.	2.16E-06	7.17E-05	5.03E-04	4.21E-04	9.98E-04
19 8.90 0.	0.	1.51E-10	0.	0.	0.	0.	0.	2.17E-06	7.42E-05	5.05E-04	4.19E-04	1.00E-03
20 8.80 0.	0.	1.50E-10	0.	0.	0.	0.	0.	2.18E-06	7.68E-05	5.04E-04	4.18E-04	1.00E-03
21 8.70 0.	0.	1.33E-10	0.	0.	0.	0.	0.	2.19E-06	7.95E-05	5.08E-04	4.16E-04	1.01E-03
22 8.60 0.	0.	1.30E-10	0.	0.	0.	0.	0.	2.20E-06	8.23E-05	5.10E-04	4.14E-04	1.01E-03
23 8.50 0.	0.	1.24E-10	0.	0.	0.	0.	0.	2.20E-06	8.52E-05	5.13E-04	4.12E-04	1.01E-03
24 8.40 0.	0.	1.24E-10	0.	0.	0.	0.	0.	2.22E-06	8.80E-05	5.15E-04	4.11E-04	1.02E-03
25 8.30 0.	0.	1.08E-10	0.	0.	0.	0.	0.	2.23E-06	9.17E-05	5.19E-04	4.10E-04	1.02E-03
26 8.20 0.	0.	1.10E-10	0.	0.	0.	0.	0.	2.24E-06	9.57E-05	5.23E-04	4.10E-04	1.03E-03
27 8.10 0.	0.	9.74E-11	0.	0.	0.	0.	0.	2.25E-06	9.97E-05	5.27E-04	4.10E-04	1.04E-03
28 8.00 0.	0.	9.90E-11	0.	0.	0.	0.	0.	2.26E-06	1.02E-04	5.32E-04	4.09E-04	1.04E-03
29 7.90 0.	0.	8.70E-11	0.	0.	0.	0.	0.	2.27E-06	1.06E-04	5.37E-04	4.09E-04	1.04E-03
30 7.80 0.	0.	9.13E-11	0.	0.	0.	0.	0.	2.28E-06	1.11E-04	5.43E-04	4.10E-04	1.07E-03
31 7.70 0.	0.	8.18E-11	0.	0.	0.	0.	0.	2.30E-06	1.15E-04	5.48E-04	4.10E-04	1.08E-03
32 7.60 0.	0.	7.08E-11	0.	0.	0.	0.	0.	2.31E-06	1.20E-04	5.55E-04	4.10E-04	1.09E-03
33 7.50 0.	0.	7.45E-11	0.	0.	0.	0.	0.	2.32E-06	1.25E-04	5.62E-04	4.10E-04	1.09E-03
34 7.40 0.	0.	6.79E-11	0.	0.	0.	0.	0.	2.33E-06	1.30E-04	5.70E-04	4.10E-04	1.07E-03
35 7.30 0.	0.	8.95E-11	0.	0.	0.	0.	0.	2.35E-06	1.35E-04	5.80E-04	4.11E-04	1.09E-03
36 7.20 0.	0.	6.01E-11	0.	0.	0.	0.	0.	2.36E-06	1.41E-04	5.94E-04	4.11E-04	1.10E-03
37 7.10 0.	0.	5.07E-11	0.	0.	0.	0.	0.	2.38E-06	1.47E-04	6.05E-04	4.11E-04	1.11E-03
38 7.00 0.	0.	5.40E-11	0.	0.	0.	0.	0.	2.40E-06	1.54E-04	6.18E-04	4.11E-04	1.13E-03
39 6.90 0.	0.	5.12E-11	0.	0.	0.	0.	0.	2.42E-06	1.59E-04	6.26E-04	4.12E-04	1.14E-03
40 6.80 0.	0.	5.02E-11	0.	0.	0.	0.	0.	2.44E-06	1.66E-04	6.37E-04	4.12E-04	1.16E-03
41 6.70 0.	0.	4.40E-11	0.	0.	0.	0.	0.	2.45E-06	1.75E-04	6.49E-04	4.13E-04	1.17E-03
42 6.60 0.	0.	4.09E-11	0.	0.	0.	0.	0.	2.47E-06	1.84E-04	6.62E-04	4.14E-04	1.19E-03
43 6.50 0.	0.	3.34E-11	0.	0.	0.	0.	0.	2.49E-06	1.93E-04	6.80E-04	4.15E-04	1.20E-03
44 6.40 0.	0.	2.36E-11	0.	0.	0.	0.	0.	2.51E-06	2.02E-04	6.98E-04	4.16E-04	1.22E-03
45 6.30 0.	0.	1.54E-11	0.	0.	0.	0.	0.	2.53E-06	2.11E-04	7.17E-04	4.16E-04	1.24E-03
46 6.20 0.	0.	8.79E-12	0.	0.	0.	0.	0.	2.55E-06	2.21E-04	7.37E-04	4.17E-04	1.26E-03
47 6.10 0.	0.	4.25E-12	0.	0.	0.	0.	0.	2.57E-06	2.32E-04	7.58E-04	4.24E-04	1.29E-03
48 6.00 0.	0.	1.10E-12	0.	0.	0.	0.	0.	2.59E-06	2.43E-04	7.80E-04	4.27E-04	1.31E-03
49 5.90 0.	0.	7.90E-14	0.	0.	0.	0.	0.	2.59E-06	2.96E-04	6.51E-04	4.30E-04	1.34E-03
50 5.80 0.	0.	2.00E-15	0.	0.	0.	0.	0.	2.59E-06	2.77E-04	6.44E-04	4.33E-04	1.37E-03
51 5.70 0.	0.	7.40E-10	0.	0.	0.	0.	0.	2.40E-06	2.02E-04	6.77E-04	4.35E-04	1.40E-03

(TEMPERATURE DEGREES K) 2300. DENSITY (GM/CC) 1.203E-05 (10.0E-03 NORMAL)

PHOTON O2 3-R ENERGY BANDS	M2 1ST POS.	M2 2ND POS.	M2 1ST WED.	M2 2ND WED.	NO BETA	NO GAMMA	NO VIB-ROT	NO 2	0- PHOTO-DET	FREE-FREE (IONS)	N	U	TOTAL AIR
52	5.40	3.45-20	0.	0.	3.21E-12	2.04E-11	0.	0.	2.13E-06	3.02E-04	6.91E-04	4.10E-04	1.43E-03
53	5.50	0.	0.	0.	3.92E-12	1.91E-11	0.	0.	2.44E-06	3.10E-04	7.07E-04	4.43E-04	1.47E-03
54	5.60	0.	0.	0.	3.46E-12	1.61E-11	0.	0.	2.95E-06	3.36E-04	7.27E-04	4.48E-04	1.51E-03
55	5.70	0.	0.	0.	3.78E-12	1.90E-11	0.	0.	2.77E-06	3.72E-04	7.47E-04	4.54E-04	1.56E-03
56	5.80	0.	0.	0.	4.12E-12	1.94E-11	0.	0.	2.80E-06	3.79E-04	6.61E-04	4.61E-04	1.50E-03
57	5.90	0.	0.	0.	4.18E-12	2.02E-11	0.	0.	2.30E-06	4.02E-04	6.81E-04	4.63E-04	1.55E-03
58	5.90	0.	0.	0.	3.82E-12	1.92E-11	0.	0.	2.32E-06	4.72E-04	7.01E-04	4.71E-04	1.60E-03
59	4.98	1.25-12	0.	0.	4.36E-12	2.15E-11	0.	0.	2.50E-06	4.56E-04	7.29E-04	4.79E-04	1.66E-03
60	4.97	2.25-12	0.	0.	4.69E-12	2.05E-11	0.	0.	2.98E-06	4.93E-04	7.57E-04	4.90E-04	1.73E-03
61	4.70	3.15-12	0.	0.	4.72E-12	1.89E-11	0.	0.	2.88E-06	5.15E-04	7.80E-04	5.03E-04	1.81E-03
62	4.40	4.45-12	0.	0.	4.90E-12	1.70E-11	0.	0.	2.40E-06	5.49E-04	6.25E-04	5.17E-04	1.69E-03
63	4.50	4.75-12	0.	0.	4.56E-12	1.29E-11	0.	0.	2.42E-06	5.49E-04	6.72E-04	5.31E-04	1.90E-03
64	4.40	5.15-12	0.	0.	4.52E-12	0.71E-12	0.	0.	2.44E-06	6.75E-04	9.20E-04	5.40E-04	2.10E-03
65	4.30	4.95-12	0.	0.	4.46E-12	0.55E-12	0.	0.	2.45E-06	6.75E-04	9.75E-04	5.40E-04	2.10E-03
66	4.20	4.05-12	0.	0.	4.73E-12	3.79E-12	0.	0.	2.47E-06	7.23E-04	1.03E-03	5.77E-04	2.33E-03
67	4.10	4.45-12	0.	0.	4.71E-12	1.08E-12	0.	0.	2.48E-06	7.79E-04	1.08E-03	5.73E-04	2.44E-03
68	4.00	4.15-12	0.	0.	4.60E-12	0.04E-13	0.	0.	2.49E-06	8.06E-04	1.14E-03	5.64E-04	2.49E-03
69	3.70	3.65-12	0.	0.	4.31E-12	2.94E-13	0.	0.	2.48E-06	9.37E-04	1.15E-03	5.14E-04	2.37E-03
70	3.60	3.95-12	0.	0.	4.71E-12	0.	0.	0.	2.47E-06	9.37E-04	1.15E-03	5.20E-04	2.47E-03
71	3.70	3.65-12	0.	0.	4.15E-12	0.	0.	0.	2.49E-06	1.37E-03	9.85E-04	1.37E-04	2.15E-03
72	3.60	3.35-12	0.	0.	4.46E-12	0.	0.	0.	2.49E-06	1.12E-03	1.04E-03	1.26E-04	2.02E-03
73	3.50	3.15-12	0.	0.	1.93E-10	3.63E-12	0.	0.	2.00E-06	1.25E-03	1.13E-03	4.26E-04	2.02E-03
74	3.40	2.95-12	0.	0.	1.29E-10	4.06E-12	0.	0.	1.50E-06	1.31E-03	1.25E-03	4.67E-04	3.10E-03
75	3.30	2.35-12	0.	0.	1.32E-10	2.15E-08	0.	0.	1.21E-06	1.51E-03	1.37E-03	5.09E-04	3.59E-03
76	3.20	2.15-12	0.	0.	8.91E-11	3.55E-12	0.	0.	1.31E-06	1.85E-03	1.50E-03	5.53E-04	3.71E-03
77	3.10	2.05-12	0.	0.	7.62E-11	3.42E-12	0.	0.	1.31E-06	1.85E-03	1.52E-03	5.53E-04	3.71E-03
78	3.00	1.85-12	0.	0.	4.38E-11	2.98E-08	0.	0.	1.21E-06	2.02E-03	1.75E-03	6.43E-04	4.06E-03
79	2.90	1.75-12	0.	0.	2.79E-11	2.59E-12	0.	0.	1.22E-06	2.25E-03	1.91E-03	6.94E-04	4.84E-03
80	2.80	1.65-12	0.	0.	1.39E-11	8.59E-09	0.	0.	1.22E-06	2.49E-03	2.00E-03	7.52E-04	5.32E-03
81	2.70	1.55-12	0.	0.	6.37E-12	9.77E-09	0.	0.	1.22E-06	2.78E-03	2.24E-03	8.16E-04	5.97E-03
82	2.60	1.45-12	0.	0.	3.83E-12	1.04E-09	0.	0.	1.32E-06	3.15E-03	2.30E-03	8.79E-04	6.32E-03
83	2.50	1.35-14	0.	0.	3.10E-13	1.04E-09	0.	0.	1.22E-06	3.45E-03	2.62E-03	9.92E-04	6.95E-03
84	2.40	0.	0.	0.	7.01E-10	1.20E-14	0.	0.	1.22E-06	4.00E-03	3.06E-03	6.61E-04	7.74E-03
85	2.30	0.	0.	0.	0.	0.	0.	0.	1.21E-06	4.55E-03	2.74E-03	6.08E-04	8.12E-03
86	2.20	0.	0.	0.	0.	0.	0.	0.	1.20E-06	5.21E-03	3.26E-03	9.46E-04	9.45E-03
87	2.10	0.	0.	0.	0.	0.	0.	0.	1.20E-06	6.02E-03	3.85E-03	1.11E-03	1.10E-02
88	2.00	0.	0.	0.	0.	0.	0.	0.	1.19E-06	6.98E-03	4.35E-03	1.27E-03	1.26E-02
89	1.90	0.	0.	0.	0.	0.	0.	0.	1.17E-06	8.16E-03	5.03E-03	1.49E-03	1.47E-02
90	1.80	0.	0.	0.	0.	0.	0.	0.	1.07E-06	9.60E-03	6.13E-03	1.81E-03	1.76E-02
91	1.70	0.	0.	0.	0.	0.	0.	0.	1.00E-06	1.15E-02	7.45E-03	2.21E-03	2.12E-02
92	1.60	0.	0.	0.	0.	0.	0.	0.	1.01E-07	1.35E-02	8.75E-03	2.60E-03	2.52E-02
93	1.50	0.	0.	0.	0.	0.	0.	0.	3.07E-07	1.49E-02	1.15E-02	3.15E-03	3.15E-02
94	1.40	0.	0.	0.	0.	0.	0.	0.	0.	2.95E-02	1.44E-02	3.76E-03	3.61E-02
95	1.30	0.	0.	0.	0.	0.	0.	0.	0.	2.62E-02	2.02E-02	4.94E-03	5.14E-02
96	1.20	0.	0.	0.	0.	0.	0.	0.	0.	3.39E-02	2.29E-02	6.90E-03	6.14E-02
97	1.10	0.	0.	0.	0.	0.	0.	0.	0.	4.30E-02	2.92E-02	9.21E-03	7.61E-02
98	1.00	0.	0.	0.	0.	0.	0.	0.	0.	5.08E-02	3.46E-02	7.10E-03	9.99E-02
99	0.90	0.	0.	0.	0.	0.	0.	0.	0.	6.15E-02	3.95E-02	8.31E-03	1.29E-01
100	0.80	0.	0.	0.	0.	0.	0.	0.	0.	1.72E-01	4.54E-02	9.53E-03	1.72E-01
101	0.70	0.	0.	0.	0.	0.	0.	0.	0.	1.70E-01	4.89E-02	9.46E-03	2.36E-01
102	0.60	0.	0.	0.	0.	0.	0.	0.	0.	2.00E-01	5.43E-02	1.06E-02	3.52E-01

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)
 TEMPERATURE (DEGREES N) 23000. DENSITY (GM/CC) 1.293E-06 (10.0E-04 NORMAL)

PHOTON 02 5-M ENERGY BANDS E.V.	02 5-M CONT.	02 5-M NO. 1	BETA	NO GAMMA	NO 2	0- FREE-FREE PHOTO-DET (IONS)	N P.E.	0 P.E.	TOTAL AIR
1 10.70 0.	0.	3.72E-14	0.	0.	0.	2.50E-09	5.25E-07	3.15E-05	5.40E-06 3.74E-05
2 10.00 0.	0.	3.44E-14	0.	0.	0.	2.51E-09	5.40E-07	3.10E-05	5.32E-06 3.77E-05
3 10.50 0.	0.	3.51E-14	0.	0.	0.	2.51E-09	5.94E-07	3.20E-05	5.29E-06 3.81E-05
4 10.40 0.	0.	3.40E-14	0.	0.	0.	2.51E-09	5.75E-07	3.24E-05	5.27E-06 3.85E-05
5 10.30 0.	0.	3.00E-14	0.	0.	0.	2.52E-09	6.00E-07	3.15E-05	5.22E-06 3.88E-05
6 10.20 0.	0.	3.14E-14	0.	0.	0.	2.52E-09	6.47E-07	3.14E-05	5.23E-06 3.93E-05
7 10.10 0.	0.	2.99E-14	0.	0.	0.	2.52E-09	6.45E-07	3.10E-05	5.19E-06 3.90E-05
8 10.00 0.	0.	2.60E-14	0.	0.	0.	2.52E-09	6.45E-07	3.10E-05	5.17E-06 3.90E-05
9 9.90 0.	0.	2.77E-14	0.	0.	0.	2.54E-09	6.05E-07	3.02E-05	5.15E-06 4.1E-05
10 9.80 0.	0.	2.64E-14	0.	0.	0.	2.54E-09	7.07E-07	3.04E-05	5.13E-06 4.2E-05
11 9.70 0.	0.	2.33E-14	0.	0.	0.	2.55E-09	7.25E-07	3.05E-05	5.11E-06 4.4E-05
12 9.60 0.	0.	2.53E-14	0.	0.	0.	2.55E-09	7.53E-07	3.07E-05	5.09E-06 4.5E-05
13 9.50 0.	0.	2.21E-14	0.	0.	0.	2.56E-09	7.77E-07	3.08E-05	5.07E-06 4.7E-05
14 9.40 0.	0.	2.13E-14	0.	0.	0.	2.57E-09	8.43E-07	3.09E-05	5.04E-06 4.8E-05
15 9.30 0.	0.	2.20E-14	0.	0.	0.	2.57E-09	8.30E-07	3.15E-05	5.04E-06 4.8E-05
16 9.20 0.	0.	1.80E-14	0.	0.	0.	2.58E-09	8.30E-07	3.15E-05	5.04E-06 4.8E-05
17 9.10 0.	0.	1.93E-14	0.	0.	0.	2.59E-09	8.50E-07	3.24E-05	5.02E-06 4.8E-05
18 9.00 0.	0.	1.70E-14	0.	0.	0.	2.60E-09	8.07E-07	3.24E-05	5.00E-06 4.8E-05
19 8.90 0.	0.	1.60E-14	0.	0.	0.	2.61E-09	9.10E-07	3.27E-05	4.99E-06 4.8E-05
20 8.80 0.	0.	1.67E-14	0.	0.	0.	2.63E-09	9.50E-07	3.20E-05	4.97E-06 4.8E-05
21 8.70 0.	0.	1.49E-14	0.	0.	0.	2.63E-09	9.03E-07	3.29E-05	4.94E-06 4.8E-05
22 8.60 0.	0.	1.55E-14	0.	0.	0.	2.63E-09	1.02E-06	3.31E-05	4.94E-06 4.9E-05
23 8.50 0.	0.	1.30E-14	0.	0.	0.	2.64E-09	1.05E-06	3.35E-05	4.93E-06 4.9E-05
24 8.40 0.	0.	1.30E-14	0.	0.	0.	2.66E-09	1.05E-06	3.35E-05	4.91E-06 4.9E-05
25 8.30 0.	0.	1.21E-14	0.	0.	0.	2.67E-09	1.13E-06	3.35E-05	4.90E-06 4.9E-05
26 8.20 0.	0.	1.23E-14	0.	0.	0.	2.69E-09	1.15E-06	3.30E-05	4.92E-06 4.9E-05
27 8.10 0.	0.	1.80E-14	0.	0.	0.	2.70E-09	1.25E-06	3.40E-05	4.92E-06 4.9E-05
28 8.00 0.	0.	1.11E-14	0.	0.	0.	2.71E-09	1.25E-06	3.40E-05	4.91E-06 4.9E-05
29 7.90 0.	0.	9.74E-15	0.	0.	0.	2.73E-09	1.32E-06	3.45E-05	4.92E-06 4.9E-05
30 7.80 0.	0.	1.82E-14	0.	0.	0.	2.74E-09	1.37E-06	3.47E-05	4.93E-06 4.9E-05
31 7.70 0.	0.	9.15E-15	0.	0.	0.	2.75E-09	1.42E-06	3.50E-05	4.94E-06 4.9E-05
32 7.60 0.	0.	8.82E-15	0.	5.33E-19	0.	2.77E-09	1.40E-06	3.51E-05	4.96E-06 4.9E-05
33 7.50 0.	0.	6.33E-15	0.	1.73E-18	0.	2.78E-09	1.54E-06	3.51E-05	4.96E-06 4.9E-05
34 7.40 0.	0.	7.40E-15	0.	1.05E-18	0.	2.80E-09	1.54E-06	3.51E-05	4.96E-06 4.9E-05
35 7.30 0.	0.	7.33E-15	0.	1.05E-17	0.	2.80E-09	1.40E-06	3.51E-05	4.96E-06 4.9E-05
36 7.20 0.	0.	6.57E-15	0.	6.0E-17	0.	2.81E-09	1.40E-06	3.51E-05	4.96E-06 4.9E-05
37 7.10 0.	0.	6.57E-15	0.	1.72E-16	0.	2.83E-09	1.74E-06	3.53E-05	4.92E-06 4.9E-05
38 7.00 0.	0.	6.57E-15	0.	5.45E-16	0.	2.83E-09	1.74E-06	3.53E-05	4.92E-06 4.9E-05
39 6.90 0.	0.	5.72E-15	0.	1.01E-15	0.	2.86E-09	1.90E-06	3.57E-05	4.94E-06 4.9E-05
40 6.80 0.	0.	5.62E-15	0.	1.53E-15	0.	2.90E-09	1.90E-06	3.57E-05	4.94E-06 4.9E-05
41 6.70 0.	0.	5.61E-15	0.	2.00E-15	0.	2.92E-09	2.07E-06	3.50E-05	4.96E-06 4.9E-05
42 6.60 0.	0.	4.50E-15	0.	2.37E-15	0.	2.95E-09	2.17E-06	3.55E-05	4.96E-06 4.9E-05
43 6.50 0.	0.	3.74E-15	0.	2.10E-15	0.	2.97E-09	2.27E-06	3.55E-05	4.96E-06 4.9E-05
44 6.40 0.	0.	2.67E-15	0.	2.01E-15	0.	2.99E-09	2.27E-06	3.55E-05	4.96E-06 4.9E-05
45 6.30 0.	0.	1.72E-15	0.	4.11E-17	0.	3.01E-09	2.40E-06	3.51E-05	4.96E-06 4.9E-05
46 6.20 0.	0.	9.83E-16	0.	5.91E-17	0.	3.06E-09	2.40E-06	3.51E-05	4.96E-06 4.9E-05
47 6.10 0.	0.	4.75E-16	0.	1.72E-16	0.	3.06E-09	2.40E-06	3.51E-05	4.96E-06 4.9E-05
48 6.00 0.	0.	1.23E-16	0.	1.72E-16	0.	3.11E-09	2.40E-06	3.51E-05	4.96E-06 4.9E-05
49 5.90 0.	0.	8.84E-18	0.	2.53E-16	0.	3.11E-09	2.40E-06	3.51E-05	4.96E-06 4.9E-05
50 5.80 0.	0.	2.24E-19	0.	3.50E-16	0.	3.06E-09	2.40E-06	3.51E-05	4.96E-06 4.9E-05
51 5.70 0.	0.	0.	0.	4.20E-16	0.	2.80E-09	2.40E-06	3.51E-05	4.96E-06 4.9E-05

TEMPERATURE (DEGREES K) 2300. DENSITY (GM/CC) 1.2935-06 : 10.42-04 NORMAL

[illegible]

ABSORPTION COEFFICIENTS - OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 23000. DENSITY (GM/CC) 1.293E-07 (10.0E-05 NORMAL)

PHOTON ENERGY E.V.	02 S-B BANDS CONT.	02 S-B CONT.	W2 0-M NO. 1	W0 BETA	W0 GAMMA	NO 2	0- PHOTO-DET (IONS)	N FREE-FREE P.E.	D TOTAL AIR P.E.
1 10.74 0.	0.	0.	2.91E-10	0.	0.	0.	3.40E-12 1.210-00E-00	1.60E-04	0.30E-00 1.70E-06
2 10.06 0.	0.	0.	2.76E-10	0.	0.	0.	3.47E-12 1.03E-00	1.63E-04	0.36E-00 1.72E-06
3 10.36 0.	0.	0.	2.75E-10	0.	0.	0.	3.47E-12 1.04E-00	1.60E-04	0.34E-00 1.63E-07
4 10.64 0.	0.	0.	2.69E-10	0.	0.	0.	3.40E-12 1.09E-00	1.74E-07	0.32E-00 6.08E-07
5 10.30 0.	0.	0.	2.35E-10	0.	0.	0.	3.40E-12 1.12E-00	5.79E-07	0.30E-00 6.73E-07
6 10.20 0.	0.	0.	2.46E-10	0.	0.	0.	3.40E-12 1.16E-00	5.97E-07	0.30E-00 6.02E-07
7 10.10 0.	0.	0.	2.34E-10	0.	0.	0.	3.40E-12 1.19E-00	5.96E-07	0.32E-00 6.91E-07
8 10.00 0.	0.	0.	2.10E-10	0.	0.	0.	3.50E-12 1.23E-00	6.04E-07	0.33E-00 7.05E-07
9 9.90 0.	0.	0.	2.17E-10	0.	0.	0.	3.50E-12 1.26E-00	6.13E-07	0.34E-00 7.09E-07
10 9.80 0.	0.	0.	2.07E-10	0.	0.	0.	3.51E-12 1.30E-00	6.22E-07	0.36E-00 7.10E-07
11 9.70 0.	0.	0.	1.83E-10	0.	0.	0.	3.52E-12 1.34E-00	6.30E-07	0.37E-00 7.27E-07
12 9.60 0.	0.	0.	1.90E-10	0.	0.	0.	3.52E-12 1.39E-00	6.39E-07	0.38E-00 7.16E-07
13 9.50 0.	0.	0.	1.74E-10	0.	0.	0.	3.53E-12 1.43E-00	6.47E-07	0.39E-00 7.46E-07
14 9.40 0.	0.	0.	1.67E-10	0.	0.	0.	3.54E-12 1.48E-00	6.56E-07	0.41E-00 7.55E-07
15 9.30 0.	0.	0.	1.72E-10	0.	0.	0.	3.55E-12 1.53E-00	6.66E-07	0.43E-00 7.55E-07
16 9.20 0.	0.	0.	1.47E-10	0.	0.	0.	3.57E-12 1.58E-00	6.14E-07	0.45E-00 7.15E-07
17 9.10 0.	0.	0.	1.52E-10	0.	0.	0.	3.50E-12 1.63E-00	6.23E-07	0.47E-00 7.24E-07
18 9.00 0.	0.	0.	1.40E-10	0.	0.	0.	3.59E-12 1.69E-00	6.32E-07	0.49E-00 7.34E-07
19 8.90 0.	0.	0.	1.32E-10	0.	0.	0.	3.61E-12 1.74E-00	6.40E-07	0.51E-00 7.43E-07
20 8.80 0.	0.	0.	1.31E-10	0.	0.	0.	3.62E-12 1.80E-00	6.49E-07	0.53E-00 7.53E-07
21 8.70 0.	0.	0.	1.17E-10	0.	0.	0.	3.63E-12 1.87E-00	6.58E-07	0.55E-00 7.62E-07
22 8.60 0.	0.	0.	1.21E-10	0.	0.	0.	3.64E-12 1.93E-00	6.67E-07	0.57E-00 7.61E-07
23 8.50 0.	0.	0.	1.00E-10	0.	0.	0.	3.66E-12 2.00E-00	6.77E-07	0.59E-00 7.70E-07
24 8.40 0.	0.	0.	1.09E-10	0.	0.	0.	3.68E-12 2.08E-00	6.86E-07	0.59E-00 7.81E-07
25 8.30 0.	0.	0.	9.40E-10	0.	0.	0.	3.70E-12 2.15E-00	6.98E-07	0.64E-00 7.94E-07
26 8.20 0.	0.	0.	9.00E-10	0.	0.	0.	3.71E-12 2.23E-00	7.14E-07	0.74E-00 8.12E-07
27 8.10 0.	0.	0.	8.55E-10	0.	0.	0.	3.73E-12 2.32E-00	7.30E-07	0.84E-00 8.29E-07
28 8.00 0.	0.	0.	8.09E-10	0.	0.	0.	3.75E-12 2.41E-00	7.48E-07	0.94E-00 8.46E-07
29 7.90 0.	0.	0.	7.64E-10	0.	0.	0.	3.77E-12 2.50E-00	7.67E-07	1.04E-00 8.63E-07
30 7.80 0.	0.	0.	8.81E-10	0.	0.	0.	3.79E-12 2.60E-00	7.87E-07	1.14E-00 8.80E-07
31 7.70 0.	0.	0.	7.18E-10	0.	0.	0.	3.81E-12 2.70E-00	8.07E-07	1.24E-00 8.97E-07
32 7.60 0.	0.	0.	6.92E-10	0.	0.	0.	3.83E-12 2.81E-00	8.28E-07	1.34E-00 9.14E-07
33 7.50 0.	0.	0.	6.54E-10	0.	0.	0.	3.85E-12 2.92E-00	8.49E-07	1.44E-00 9.31E-07
34 7.40 0.	0.	0.	5.96E-10	0.	0.	0.	3.87E-12 3.03E-00	8.70E-07	1.54E-00 9.48E-07
35 7.30 0.	0.	0.	5.75E-10	0.	0.	0.	3.89E-12 3.17E-00	8.92E-07	1.64E-00 9.65E-07
36 7.20 0.	0.	0.	5.20E-10	0.	0.	0.	3.91E-12 3.31E-00	9.15E-07	1.74E-00 9.82E-07
37 7.10 0.	0.	0.	5.15E-10	0.	0.	0.	3.93E-12 3.45E-00	9.38E-07	1.84E-00 1.00E-07
38 7.00 3.43E-22	0.	0.	4.61E-10	0.	0.	0.	3.95E-12 3.60E-00	9.62E-07	1.94E-00 1.02E-07
39 6.90 7.15E-22	0.	0.	4.49E-10	0.	0.	0.	4.01E-12 3.76E-00	9.87E-07	2.04E-00 1.04E-07
40 6.80 4.23E-22	0.	0.	4.41E-10	0.	0.	0.	4.04E-12 3.93E-00	1.01E-07	2.14E-00 1.06E-07
41 6.70 4.60E-22	0.	0.	3.93E-10	0.	0.	0.	4.07E-12 4.11E-00	1.04E-07	2.24E-00 1.08E-07
42 6.60 2.83E-22	0.	0.	3.59E-10	0.	0.	0.	4.11E-12 4.30E-00	1.07E-07	2.34E-00 1.10E-07
43 6.50 1.64E-22	0.	0.	2.93E-10	0.	0.	0.	4.14E-12 4.51E-00	1.10E-07	2.44E-00 1.12E-07
44 6.40 6.43E-23	0.	0.	2.09E-10	0.	0.	0.	4.17E-12 4.72E-00	1.13E-07	2.54E-00 1.14E-07
45 6.30 5.69E-23	0.	0.	1.35E-10	0.	0.	0.	4.20E-12 4.95E-00	1.16E-07	2.64E-00 1.16E-07
46 6.20 2.61E-23	0.	0.	7.71E-20	0.	0.	0.	4.23E-12 5.20E-00	1.19E-07	2.74E-00 1.18E-07
47 6.10 1.22E-23	0.	0.	3.73E-20	0.	0.	0.	4.26E-12 5.44E-00	1.22E-07	2.84E-00 1.20E-07
48 6.00 5.16E-24	0.	0.	0.69E-21	0.	0.	0.	4.30E-12 5.70E-00	1.25E-07	2.94E-00 1.22E-07
49 5.90 1.20E-24	0.	0.	6.93E-22	0.	0.	0.	4.34E-12 6.00E-00	1.28E-07	3.04E-00 1.24E-07
50 5.80 1.64E-25	0.	0.	1.74E-23	0.	0.	0.	4.38E-12 6.30E-00	1.31E-07	3.14E-00 1.26E-07
51 5.70 1.21E-26	0.	0.	0.	0.	0.	0.	4.43E-12 6.71E-00	1.34E-07	3.24E-00 1.28E-07

PHOTON Q2 5-R ENERGY BANDS	W2 1ST POS.	W2 2ND POS.	W2 1ST NEG.	NO DATA	NO GAMMA	NO VIB-ROT	W0 2	O- PHOTO-OXY	FREE-FREE (IONS)	N P.E.	O P.E.	TOTAL AIR
52	5.40	5.49E-20	0.	0.	3.89E-20	2.49E-19	0.	3.70E-12	7.05E-08	3.60E-07	7.42E-08	5.16E-07
53	5.50	0.	0.	0.	4.65E-20	2.27E-19	0.	3.72E-12	7.48E-08	3.60E-07	7.77E-08	5.42E-07
54	5.49	0.	0.	0.	4.40E-20	1.92E-19	0.	3.74E-12	7.40E-08	4.11E-07	7.96E-08	5.70E-07
55	5.50	0.	0.	0.	4.51E-20	2.24E-19	0.	3.76E-12	8.37E-08	4.35E-07	8.17E-08	6.09E-07
56	5.50	0.	0.	0.	4.51E-20	1.90E-19	0.	3.78E-12	8.06E-08	4.56E-07	8.41E-08	6.28E-07
57	5.50	0.	0.	0.	4.95E-20	2.41E-19	0.	3.82E-12	9.40E-08	4.74E-07	8.64E-08	6.59E-07
58	5.50	7.61E-21	0.	0.	4.95E-20	2.32E-19	0.	3.85E-12	9.09E-08	5.01E-07	8.87E-08	6.89E-07
59	4.90	1.94E-20	0.	0.	5.15E-20	2.57E-19	0.	3.88E-12	1.04E-07	5.24E-07	9.12E-08	7.21E-07
60	4.90	3.71E-20	0.	0.	5.34E-20	2.44E-19	0.	3.91E-12	1.15E-07	5.47E-07	8.63E-08	7.48E-07
61	4.70	5.11E-20	0.	0.	5.62E-20	2.23E-19	0.	3.93E-12	1.20E-07	5.60E-07	8.93E-08	7.69E-07
62	4.60	7.11E-20	0.	0.	5.64E-20	2.05E-19	0.	3.95E-12	1.24E-07	6.12E-07	9.24E-08	8.43E-07
63	4.50	7.66E-20	0.	5.03E-20	5.44E-20	1.55E-19	0.	4.00E-12	1.37E-07	6.37E-07	9.57E-08	8.98E-07
64	4.40	7.11E-20	0.	1.40E-19	5.95E-20	1.04E-19	0.	4.04E-12	1.47E-07	7.09E-07	9.95E-08	9.59E-07
65	4.30	8.31E-20	0.	5.88E-19	5.36E-20	8.64E-20	0.	4.07E-12	1.57E-07	7.52E-07	1.01E-07	1.01E-06
66	4.20	7.57E-20	0.	1.93E-19	5.64E-20	4.51E-20	0.	4.11E-12	1.69E-07	8.03E-07	9.54E-08	1.07E-06
67	4.10	7.20E-20	0.	7.31E-19	5.61E-20	1.90E-20	0.	4.12E-12	1.69E-07	8.56E-07	7.56E-08	1.11E-06
68	4.00	6.73E-20	0.	2.32E-18	5.40E-20	9.57E-21	0.	4.14E-12	1.90E-07	9.03E-07	7.97E-08	1.18E-06
69	3.90	5.52E-20	0.	1.07E-18	5.17E-20	3.51E-21	0.	4.17E-12	2.17E-07	9.34E-07	8.17E-08	1.21E-06
70	3.80	4.43E-20	0.	1.74E-18	5.59E-20	0.	0.	4.17E-12	2.28E-07	9.74E-07	8.64E-08	1.30E-06
71	3.70	5.66E-20	0.	1.40E-18	2.76E-15	4.9E-20	0.	4.05E-12	2.42E-07	1.04E-06	9.29E-08	1.38E-06
72	3.60	5.50E-20	0.	1.31E-18	4.32E-20	0.	0.	3.78E-12	2.73E-07	1.10E-06	9.67E-08	1.46E-06
73	3.50	5.09E-20	0.	1.00E-18	2.34E-14	4.32E-20	0.	3.48E-12	2.94E-07	1.15E-06	1.07E-07	1.55E-06
74	3.40	4.76E-20	0.	1.13E-18	4.21E-15	4.9E-20	0.	2.06E-12	3.23E-07	1.22E-06	1.16E-07	1.66E-06
75	3.30	3.65E-20	0.	1.60E-18	1.49E-14	3.90E-20	0.	2.06E-12	3.55E-07	1.29E-06	1.25E-07	1.77E-06
76	3.20	3.42E-20	0.	7.62E-19	2.29E-14	4.26E-20	0.	2.31E-12	3.67E-07	1.34E-06	1.20E-07	1.93E-06
77	3.10	3.33E-20	0.	6.46E-19	4.71E-15	4.07E-20	0.	2.31E-12	2.78E-07	5.90E-07	1.39E-07	1.5E-06
78	3.00	3.64E-20	0.	3.64E-19	1.40E-14	3.96E-20	0.	2.03E-12</				

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)				DENSITY (GM/CC) 1.293E-08 (1.0E-05 NORMAL)				
PHOTON 02 5-R	02 5-R	NO 0-4	NO 0-4	NO 0-4	0-4	FREE-FREE	0-4	TOTAL AIR
ENERGY RANGES	CONT.	NO. 1	0-4	0-4	2	PHOTO-BET (100S)	P.E.	P.E.
E.V.								
1 10.70 0.	0.	5.74E-23	0.	0.	4.17E-15	2.27E-10	1.50E-08	2.20E-09
2 10.00 0.	0.	5.33E-23	0.	0.	4.17E-15	2.34E-10	1.60E-08	2.28E-09
3 10.50 0.	0.	5.44E-23	0.	0.	4.10E-15	2.41E-10	1.61E-08	2.28E-09
4 10.40 0.	0.	5.04E-23	0.	0.	4.10E-15	2.48E-10	1.63E-08	2.28E-09
5 10.30 0.	0.	4.95E-23	0.	0.	4.19E-15	2.55E-10	1.64E-08	2.20E-09
6 10.20 0.	0.	4.04E-23	0.	0.	4.20E-15	2.61E-10	1.67E-08	2.31E-09
7 10.10 0.	0.	4.95E-23	0.	0.	4.20E-15	2.78E-10	1.70E-08	2.31E-09
8 10.00 0.	0.	4.04E-23	0.	0.	4.21E-15	2.79E-10	1.73E-08	2.35E-09
9 9.90 0.	0.	4.99E-23	0.	0.	4.22E-15	2.87E-10	1.76E-08	2.38E-09
10 9.80 0.	0.	4.06E-23	0.	0.	4.22E-15	2.96E-10	1.78E-08	2.40E-09
11 9.70 0.	0.	3.02E-23	0.	0.	4.23E-15	3.06E-10	1.81E-08	2.43E-09
12 9.60 0.	0.	3.92E-23	0.	0.	4.24E-15	3.15E-10	1.84E-08	2.45E-09
13 9.50 0.	0.	3.03E-23	0.	0.	4.25E-15	3.25E-10	1.87E-08	2.47E-09
14 9.40 0.	0.	3.91E-23	0.	0.	4.26E-15	3.36E-10	1.90E-08	2.50E-09
15 9.30 0.	0.	3.91E-23	0.	0.	4.28E-15	3.47E-10	1.93E-08	2.53E-09
16 9.20 0.	0.	2.91E-23	0.	0.	4.29E-15	3.50E-10	1.93E-08	2.56E-09
17 9.10 0.	0.	3.06E-23	0.	0.	4.31E-15	3.70E-10	1.96E-08	2.58E-09
18 9.00 0.	0.	2.70E-23	0.	0.	4.32E-15	3.83E-10	1.96E-08	2.61E-09
19 8.90 0.	0.	2.92E-23	0.	0.	4.34E-15	3.96E-10	1.97E-08	2.64E-09
20 8.80 0.	0.	2.90E-23	0.	0.	4.35E-15	4.10E-10	2.04E-08	1.83E-09
21 8.70 0.	0.	2.91E-23	0.	0.	4.37E-15	4.24E-10	2.07E-08	1.85E-09
22 8.60 0.	0.	2.90E-23	0.	0.	4.39E-15	4.35E-10	2.10E-08	1.89E-09
23 8.50 0.	0.	2.95E-23	0.	0.	4.40E-15	4.55E-10	2.13E-08	1.92E-09
24 8.40 0.	0.	2.66E-23	0.	0.	4.42E-15	4.72E-10	2.17E-08	1.96E-09
25 8.30 0.	0.	1.07E-23	0.	0.	4.45E-15	4.89E-10	1.39E-08	2.00E-09
26 8.20 0.	0.	1.05E-23	0.	0.	4.47E-15	5.07E-10	1.40E-08	2.06E-09
27 8.10 0.	0.	1.06E-23	0.	0.	4.49E-15	5.26E-10	1.45E-08	2.13E-09
28 8.00 0.	0.	1.25E-23	0.	0.	4.52E-15	5.46E-10	1.51E-08	2.19E-09
29 7.90 0.	0.	1.31E-23	0.	0.	4.54E-15	5.67E-10	1.56E-08	2.26E-09
30 7.80 0.	0.	1.50E-23	0.	0.	4.56E-15	5.89E-10	1.61E-08	2.33E-09
31 7.70 0.	0.	1.42E-23	0.	0.	4.59E-15	6.13E-10	1.67E-08	2.48E-09
32 7.60 0.	0.	1.37E-23	0.	0.	4.61E-15	6.37E-10	1.74E-08	2.68E-09
33 7.50 0.	0.	1.50E-23	0.	0.	4.63E-15	6.63E-10	1.81E-08	2.83E-09
34 7.40 0.	0.	1.48E-23	0.	0.	4.68E-15	6.91E-10	1.88E-08	2.91E-09
35 7.30 0.	0.	1.44E-23	0.	0.	4.68E-15	7.20E-10	1.96E-08	2.70E-09
36 7.20 0.	0.	1.04E-23	0.	0.	4.71E-15	7.50E-10	1.75E-08	2.83E-09
37 7.10 0.	0.	1.02E-23	0.	0.	4.75E-15	7.83E-10	1.64E-08	2.95E-09
38 7.00 2.94E-24	0.	9.91E-24	0.	0.	4.79E-15	8.17E-10	1.94E-08	3.03E-09
39 6.90 5.79E-24	0.	9.79E-24	0.	0.	4.83E-15	8.53E-10	2.03E-08	3.05E-09
40 6.80 5.05E-24	0.	7.71E-24	0.	0.	4.86E-15	8.91E-10	2.12E-08	3.33E-09
41 6.70 3.72E-24	0.	7.77E-24	0.	0.	4.90E-15	9.32E-10	2.21E-08	3.46E-09
42 6.60 2.29E-24	0.	7.10E-24	0.	0.	4.94E-15	9.76E-10	2.30E-08	3.59E-09
43 6.50 1.34E-24	0.	5.79E-24	0.	0.	4.98E-15	1.02E-09	2.40E-08	3.72E-09
44 6.40 7.01E-27	0.	3.45E-24	3.45E-24	0.	5.02E-15	1.07E-09	2.49E-08	3.85E-09
45 6.30 6.41E-27	0.	1.66E-24	1.66E-24	0.	5.06E-15	1.12E-09	2.58E-08	3.99E-09
46 6.20 2.11E-27	0.	2.40E-24	2.40E-24	0.	5.10E-15	1.18E-09	2.68E-08	4.14E-09
47 6.10 9.06E-28	0.	6.95E-25	1.36E-23	0.	5.15E-15	1.24E-09	2.78E-08	4.29E-09
48 6.00 4.10E-28	0.	1.15E-25	6.89E-25	0.	5.17E-15	1.30E-09	2.90E-08	4.44E-09
49 5.90 1.04E-28	0.	1.37E-26	6.40E-24	0.	5.17E-15	1.37E-09	2.93E-08	1.76E-09
50 5.80 1.33E-29	0.	1.45E-24	1.45E-24	0.	5.18E-15	1.44E-09	2.67E-09	1.81E-09
51 5.70 9.79E-31	0.	1.73E-24	7.00E-24	0.	4.79E-15	1.52E-09	1.61E-08	1.19E-09

ADSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 2300. DENSITY (GM/CC) 1.293E-08 (1.0E-05 NORMAL)

PHOTON Q2 S-R ENERGY BANDS	H2 1ST POS.	H2 2ND POS.	H2+ 1ST NEG.	H2+ 2ND NEG.	NO BETA	NO GAMMA	NO WID-RQT	NO 2	0- PHOTO-DET	FREE-FREE (IONS)	N P.E.	0 e.e.	TOTAL AID
52	5.90	4.45E-32	0.	0.	1.53E-24	9.81E-24	0.	0.	4.45E-15	1.40E-09	1.08E-08	1.03E-09	1.41E-08
53	5.90	0.	0.	0.	1.57E-24	9.77E-24	0.	0.	4.47E-15	1.89E-09	1.14E-09	2.00E-09	1.51E-08
54	5.90	0.	0.	0.	1.78E-24	7.68E-24	0.	0.	4.50E-15	1.79E-09	1.51E-09	2.09E-09	1.49E-08
55	5.90	0.	0.	0.	1.80E-24	9.44E-24	0.	0.	4.53E-15	1.89E-09	1.47E-09	2.19E-09	1.49E-08
56	5.90	0.	0.	0.	1.96E-24	7.58E-24	0.	0.	4.56E-15	2.01E-09	1.35E-09	2.30E-09	1.78E-08
57	5.90	0.	0.	0.	1.97E-24	9.42E-24	0.	0.	4.59E-15	2.13E-09	1.42E-09	1.91E-09	1.81E-08
58	5.90	0.	0.	0.	1.62E-24	9.27E-24	0.	0.	4.63E-15	2.26E-09	1.49E-09	2.02E-09	1.97E-08
59	5.90	0.	0.	0.	2.05E-24	1.03E-23	0.	0.	4.67E-15	2.40E-09	1.56E-09	2.11E-09	2.07E-08
60	4.80	3.00E-24	0.	0.	2.22E-24	9.75E-24	0.	0.	4.71E-15	2.56E-09	1.63E-09	2.30E-09	2.11E-08
61	4.77	4.1E-24	0.	0.	2.25E-24	8.93E-24	0.	0.	4.75E-15	2.72E-09	1.73E-09	2.31E-09	2.21E-08
62	4.90	5.81E-24	0.	0.	2.33E-24	8.76E-24	0.	0.	4.79E-15	2.91E-09	1.87E-09	2.42E-09	2.43E-08
63	4.90	6.79E-24	0.	0.	2.17E-24	4.1E-24	0.	0.	4.83E-15	3.11E-09	2.00E-09	2.52E-09	2.53E-08
64	4.90	6.75E-24	0.	0.	2.20E-24	4.15E-24	0.	0.	4.86E-15	3.32E-09	2.13E-09	2.88E-09	2.73E-08
65	4.90	6.43E-24	0.	0.	2.24E-24	2.45E-24	0.	0.	4.90E-15	3.56E-09	2.26E-09	2.93E-09	2.93E-08
66	4.90	6.13E-24	0.	0.	2.26E-24	1.81E-24	0.	0.	4.94E-15	3.83E-09	2.42E-09	2.99E-09	3.08E-08
67	4.1	5.83E-24	0.	0.	2.24E-24	5.14E-25	0.	0.	4.98E-15	4.12E-09	2.58E-09	3.00E-09	3.27E-08
68	4.00	5.48E-24	0.	0.	2.19E-24	3.83E-25	0.	0.	4.98E-15	4.44E-09	2.74E-09	3.00E-09	3.48E-08
69	3.90	4.73E-24	0.	0.	2.15E-24	1.40E-25	0.	0.	4.98E-15	4.79E-09	2.92E-09	3.00E-09	3.69E-08
70	3.80	5.21E-24	0.	0.	2.07E-24	1.40E-25	0.	0.	4.98E-15	5.15E-09	3.16E-09	3.00E-09	3.92E-08
71	3.70	4.74E-24	0.	0.	2.04E-24	0.	0.	0.	4.98E-15	5.52E-09	3.42E-09	3.00E-09	4.13E-08
72	3.60	4.34E-24	0.	0.	2.04E-24	1.73E-24	0.	0.	4.98E-15	6.05E-09	3.88E-09	3.00E-09	4.38E-08
73	3.50	4.13E-24	0.	0.	2.04E-24	1.73E-24	0.	0.	4.98E-15	6.45E-09	4.38E-09	3.00E-09	4.64E-08
74	3.40	3.89E-24	0.	0.	2.04E-24	1.99E-24	0.	0.	2.40E-15	7.27E-09	4.77E-09	3.00E-09	5.06E-08
75	3.30	3.15E-24	0.	0.	2.04E-24	1.99E-24	0.	0.	2.41E-15	7.94E-09	5.12E-09	3.00E-09	5.35E-08
76	3.20	2.78E-24	0.	0.	2.04E-24	1.69E-24	0.	0.	2.41E-15	8.74E-09	5.58E-09	3.00E-09	5.76E-08
77	3.10	2.70E-24	0.	0.	2.04E-24	1.63E-24	0.	0.	2.41E-15	9.72E-09	6.17E-09	3.00E-09	6.26E-08
78	3.00	2.47E-24	0.	0.	2.04E-24	1.57E-24	0.	0.	2.42E-15	1.			

ABSORPTION COEFFICIENT OF HEATED AIR (INVERSE CM.)											
TEMPERATURE (DEGREES K) 23000.											
PHOTON ENERGY E.V.	PHOTON ENERGY eV	Q2 5-R CM ²	Q2 B-M MO. 1	NO DELTA	NO GAMMA	NO 2	FREE-FREE		TOTAL AIR		
							PHOTO-OET (IONS)	P.E.			
1 10.70 0.	1.58E-20	0.	0.	0.	0.	0.	1.41E-10	3.24E-12	2.73E-10	4.65E-11	2.73E-10
2 10.60 0.	1.46E-20	0.	0.	0.	0.	0.	1.41E-10	3.34E-12	2.73E-10	4.66E-11	2.73E-10
3 10.50 0.	1.40E-20	0.	0.	0.	0.	0.	1.41E-10	3.43E-12	2.73E-10	4.66E-11	2.73E-10
4 10.40 0.	1.44E-20	0.	0.	0.	0.	0.	1.41E-10	3.53E-12	2.73E-10	4.67E-11	2.73E-10
5 10.30 0.	1.38E-20	0.	0.	0.	0.	0.	1.42E-10	3.64E-12	2.73E-10	4.69E-11	2.73E-10
6 10.20 0.	1.33E-20	0.	0.	0.	0.	0.	1.42E-10	3.75E-12	2.73E-10	4.75E-11	2.73E-10
7 10.10 0.	1.27E-20	0.	0.	0.	0.	0.	1.42E-10	3.86E-12	2.73E-10	4.81E-11	2.73E-10
8 10.00 0.	1.14E-20	0.	0.	0.	0.	0.	1.42E-10	3.98E-12	2.73E-10	4.95E-11	2.73E-10
9 9.90 0.	1.10E-20	0.	0.	0.	0.	0.	1.42E-10	4.10E-12	2.73E-10	5.01E-11	2.73E-10
10 9.80 0.	1.12E-20	0.	0.	0.	0.	0.	1.43E-10	4.23E-12	2.73E-10	5.15E-11	2.73E-10
11 9.70 0.	9.2E-20	0.	0.	0.	0.	0.	1.43E-10	4.36E-12	2.73E-10	5.15E-11	2.73E-10
12 9.60 0.	1.08E-20	0.	0.	0.	0.	0.	1.43E-10	4.50E-12	2.73E-10	5.22E-11	2.73E-10
13 9.50 0.	9.41E-20	0.	0.	0.	0.	0.	1.44E-10	4.79E-12	2.73E-10	5.29E-11	2.73E-10
14 9.40 0.	9.07E-20	0.	0.	0.	0.	0.	1.44E-10	4.95E-12	2.73E-10	5.37E-11	2.73E-10
15 9.30 0.	9.34E-20	0.	0.	0.	0.	0.	1.45E-10	5.11E-12	2.73E-10	5.43E-11	2.73E-10
16 9.20 0.	7.97E-20	0.	0.	0.	0.	0.	1.45E-10	5.29E-12	2.73E-10	5.51E-11	2.73E-10
17 9.10 0.	8.22E-20	0.	0.	0.	0.	0.	1.46E-10	5.48E-12	2.73E-10	5.71E-11	2.73E-10
18 9.00 0.	7.01E-20	0.	0.	0.	0.	0.	1.46E-10	5.68E-12	2.73E-10	5.40E-11	2.73E-10
19 8.90 0.	7.18E-20	0.	0.	0.	0.	0.	1.47E-10	5.89E-12	2.73E-10	5.40E-11	2.73E-10
20 8.80 0.	7.12E-20	0.	0.	0.	0.	0.	1.47E-10	5.89E-12	2.73E-10	5.40E-11	2.73E-10
21 8.70 0.	6.32E-20	0.	0.	0.	0.	0.	1.48E-10	6.05E-12	2.73E-10	5.57E-11	2.73E-10
22 8.60 0.	6.57E-20	0.	0.	0.	0.	0.	1.48E-10	6.27E-12	2.73E-10	5.67E-11	2.73E-10
23 8.50 0.	5.39E-20	0.	0.	0.	0.	0.	1.49E-10	6.49E-12	2.73E-10	5.67E-11	2.73E-10
24 8.40 0.	5.22E-20	0.	0.	0.	0.	0.	1.49E-10	6.73E-12	2.73E-10	5.95E-11	2.73E-10
25 8.30 0.	5.14E-20	0.	0.	0.	0.	0.	1.50E-10	6.97E-12	2.73E-10	5.95E-11	2.73E-10
26 8.20 0.	5.24E-20	0.	0.	0.	0.	0.	1.51E-10	7.23E-12	2.73E-10	6.22E-11	2.73E-10
27 8.10 0.	4.03E-20	0.	0.	0.	0.	0.	1.52E-10	7.51E-12	2.73E-10	6.39E-11	2.73E-10
28 8.00 0.	4.71E-20	0.	0.	0.	0.	0.	1.53E-10	7.79E-12	2.73E-10	6.39E-11	2.73E-10
29 7.90 0.	4.14E-20	0.	0.	0.	0.	0.	1.53E-10	8.09E-12	2.73E-10	6.72E-11	2.73E-10
30 7.80 0.	3.84E-20	0.	0.	0.	0.	0.	1.54E-10	8.41E-12	2.73E-10	6.89E-11	2.73E-10
31 7.70 0.	3.89E-20	0.	0.	0.	0.	0.	1.55E-10	8.74E-12	2.73E-10	7.04E-11	2.73E-10
32 7.60 0.	3.75E-20	0.	0.	0.	0.	0.	1.56E-10	9.08E-12	2.73E-10	7.24E-11	2.73E-10
33 7.50 0.	3.94E-20	0.	0.	0.	0.	0.	1.57E-10	9.43E-12	2.73E-10	7.42E-11	2.73E-10
34 7.40 0.	3.11E-20	0.	0.	0.	0.	0.	1.57E-10	9.79E-12	2.73E-10	7.65E-11	2.73E-10
35 7.30 0.	3.11E-20	0.	0.	0.	0.	0.	1.58E-10	1.01E-11	2.73E-10	7.85E-11	2.73E-10
36 7.20 0.	2.04E-20	0.	0.	0.	0.	0.	1.59E-10	1.03E-11	2.73E-10	8.17E-11	2.73E-10
37 7.10 0.	2.79E-20	0.	0.	0.	0.	0.	1.60E-10	1.05E-11	2.73E-10	8.49E-11	2.73E-10
38 7.00 2.53E-31	2.01E-20	0.	0.	0.	0.	0.	1.62E-10	1.16E-11	2.73E-10	8.82E-11	2.73E-10
39 6.90 5.68E-31	2.43E-20	0.	0.	0.	0.	0.	1.63E-10	1.22E-11	2.73E-10	9.14E-11	2.73E-10
40 6.80 4.34E-31	2.39E-20	0.	0.	0.	0.	0.	1.64E-10	1.27E-11	2.73E-10	9.47E-11	2.73E-10
41 6.70 3.21E-31	2.13E-20	0.	0.	0.	0.	0.	1.64E-10	1.33E-11	2.73E-10	9.79E-11	2.73E-10
42 6.60 1.98E-31	1.93E-20	0.	0.	0.	0.	0.	1.67E-10	1.39E-11	2.73E-10	1.01E-11	2.73E-10
43 6.50 1.14E-31	1.50E-20	0.	0.	0.	0.	0.	1.68E-10	1.46E-11	2.73E-10	1.04E-11	2.73E-10
44 6.40 8.74E-32	1.35E-20	0.	0.	0.	0.	0.	1.70E-10	1.53E-11	2.73E-10	1.07E-11	2.73E-10
45 6.30 5.98E-32	7.2E-20	0.	0.	0.	0.	0.	1.71E-10	1.60E-11	2.73E-10	1.10E-11	2.73E-10
46 6.20 1.82E-32	4.18E-20	0.	0.	0.	0.	0.	1.72E-10	1.68E-11	2.73E-10	1.13E-11	2.73E-10
47 6.10 8.51E-33	2.07E-20	0.	0.	0.	0.	0.	1.73E-10	1.77E-11	2.73E-10	1.16E-11	2.73E-10
48 6.00 5.61E-33	3.52E-20	0.	0.	0.	0.	0.	1.75E-10	1.86E-11	2.73E-10	1.19E-11	2.73E-10
49 5.90 3.04E-34	3.74E-20	0.	0.	0.	0.	0.	1.75E-10	1.95E-11	2.73E-10	1.22E-11	2.73E-10
50 5.80 1.15E-34	9.52E-20	0.	0.	0.	0.	0.	1.72E-10	2.06E-11	2.73E-10	1.25E-11	2.73E-10
51 5.70 8.45E-36	0.	0.	0.	0.	0.	0.	1.62E-10	2.17E-11	2.73E-10	1.28E-11	2.73E-10

TEMPERATURE (DEGREES K) 2300. DENSITY (GM/CC) 1.293E-09 (1.0E-06 NORMAL)

PHOTON QZ 5-R ENERGY BANDS	N2 1ST POS.	N2 2ND POS.	N2 1ST DEG.	N2 2ND DEG.	NO BETA	NO GAMMA	NO VIB-ROT	NO	NO	O- PHOTO-DET		FREE-FREE (17W)		TOTAL AID
										P.E.	P.E.	P.E.	P.E.	
52	5.60	3.845-37	0.	0.	7.445-30	4.775-29	0.	0.	1.505-10	2.295-11	1.535-10	3.015-11	2.145-10	
53	5.30	0.	0.	0.	9.115-30	4.475-29	0.	0.	1.515-10	2.445-11	1.525-10	3.065-11	2.265-10	
54	5.40	0.	0.	0.	8.575-30	4.745-29	0.	0.	1.525-10	2.955-11	1.525-10	4.335-11	2.395-10	
55	5.50	0.	0.	0.	8.785-30	4.595-29	0.	0.	1.535-10	2.775-11	1.525-10	4.455-11	2.535-10	
56	5.20	0.	0.	0.	9.565-30	3.695-28	0.	0.	1.545-10	2.865-11	1.525-10	3.525-11	2.565-10	
57	5.10	0.	0.	0.	9.605-30	4.685-29	0.	0.	1.555-10	3.035-11	1.525-10	3.735-11	2.785-10	
58	5.00	0.	0.	0.	8.685-30	4.515-29	0.	0.	1.565-10	3.325-11	1.525-10	3.745-11	2.845-10	
59	4.90	1.355-29	0.	0.	9.975-30	5.315-29	0.	0.	1.585-10	3.325-11	1.525-10	4.455-11	2.905-10	
60	4.80	2.595-29	0.	0.	1.105-29	4.735-29	0.	0.	1.595-10	3.645-11	1.525-10	4.375-11	3.125-10	
61	4.70	3.935-29	0.	0.	1.105-29	4.595-29	0.	0.	1.605-10	3.885-11	1.475-10	4.405-11	3.315-10	
62	4.60	5.055-29	0.	0.	1.145-29	3.645-28	0.	0.	1.625-10	4.445-11	1.475-10	4.455-11	3.555-10	
63	4.50	3.315-29	0.	2.735-30	1.045-29	2.985-29	0.	0.	1.635-10	4.475-11	1.405-10	5.115-11	3.795-10	
64	4.40	5.855-29	0.	2.735-30	1.075-29	2.725-29	0.	0.	1.645-10	4.745-11	1.375-10	5.375-11	4.045-10	
65	4.30	5.805-29	0.	2.735-30	1.075-29	2.725-29	0.	0.	1.655-10	5.045-11	1.375-10	5.775-11	4.295-10	
66	4.20	5.295-29	0.	2.735-30	1.105-29	8.745-30	0.	0.	1.675-10	5.455-11	1.345-10	5.805-11	4.575-10	
67	4.10	5.935-29	0.	3.945-29	1.095-29	2.535-30	0.	0.	1.685-10	5.875-11	1.375-10	6.405-11	4.995-10	
68	4.00	4.795-29	0.	1.215-28	1.075-29	1.865-30	0.	0.	1.695-10	6.325-11	1.375-10	6.895-11	5.225-10	
69	3.90	4.035-29	0.	5.815-29	1.015-29	6.845-31	0.	0.	1.685-10	6.815-11	1.375-10	7.385-11	5.555-10	
70	3.80	4.535-29	0.	9.435-29	1.095-29	0.	0.	1.675-10	7.395-11	1.375-10	7.885-11	5.895-10		
71	3.70	4.135-29	0.	7.435-29	1.095-29	0.	0.	1.655-10	8.035-11	1.405-10	8.385-11	6.235-10		
72	3.60	3.715-29	0.	7.135-29	4.885-23	1.945-29	0.	0.	1.645-10	8.755-11	1.435-10	7.885-11	6.475-10	
73	3.50	3.565-29	0.	0.185-29	0.245-23	8.405-30	0.	0.	1.615-10	9.485-11	1.535-10	8.125-11	6.715-10	
74	3.40	3.335-29	0.	0.185-29	1.485-23	9.445-30	0.	0.	1.615-10	1.045-10	1.605-10	8.985-11	7.055-10	
75	3.30	2.685-29	0.	0.285-29	5.245-23	7.745-30	0.	0.	1.615-10	1.135-10	1.605-10	9.885-11	7.395-10	
76	3.20	2.385-29	0.	4.255-29	7.855-23	8.235-30	0.	0.	1.615-10	1.245-10	1.625-10	1.085-11	7.735-10	
77	3.10	2.135-29	0.	3.345-29	2.335-23	7.935-30	0.							

TEMPERATURE DEGREES K) 2400. DENSITY (GM/CC) 1.293E-02 (1.29 G/CM3 NORMAL)

PHOTON D2 S-R ENERGY RAVDS	N2 1ST POS.	N2 2ND POS.	N2+ 1ST NEG.	N0 BETA	N0 GAMMA	N0 VIB-ROT	N0	G- FREE-FREE		P.E.	TOTAL A.E.						
								PHOTO-DET (IONS)	W								
52	5.40	8.44E-12	0.	0.	1.03E-03	6.44E-03	0.	6.13E	00	9.30E	00	1.40E	01	8.70E	00	4.00E	01
53	5.50	0.	0.	0.	1.06E-03	6.14E-03	0.	6.06E	00	9.07E	00	1.70E	01	8.70E	00	4.10E	01
54	5.60	0.	0.	0.	1.00E-03	5.28E-03	0.	6.09E	00	1.70E	01	1.70E	01	8.80E	00	4.30E	01
55	5.70	0.	0.	0.	1.22E-03	6.30E-03	0.	6.13E	00	1.10E	01	1.80E	01	8.90E	00	4.40E	01
56	5.80	0.	0.	0.	1.34E-03	5.19E-03	0.	6.17E	00	1.10E	01	1.80E	01	9.13E	00	4.50E	01
57	5.90	0.	0.	0.	1.46E-03	6.51E-03	0.	6.23E	00	1.23E	01	1.90E	01	9.24E	00	4.70E	01
58	6.00	0.	0.	0.	1.58E-03	6.51E-03	0.	6.28E	00	1.15E	01	1.90E	01	9.40E	00	4.80E	01
59	6.10	0.	0.	0.	1.60E-03	7.37E-03	0.	6.33E	00	1.35E	01	2.00E	01	9.57E	00	5.00E	01
60	6.20	0.	0.	0.	1.51E-03	6.71E-03	0.	6.38E	00	1.40E	01	2.13E	01	9.70E	00	5.23E	01
61	6.30	0.	0.	0.	1.44E-03	6.16E-03	0.	6.43E	00	1.50E	01	2.22E	01	1.40E	01	5.49E	01
62	6.40	0.	0.	0.	1.00E-03	5.96E-03	0.	6.49E	00	1.50E	01	2.13E	01	1.03E	01	5.60E	01
63	6.50	0.	0.	0.	1.09E-03	4.21E-03	0.	6.54E	00	1.80E	01	2.45E	01	1.80E	01	5.96E	01
64	6.60	0.	0.	0.	1.15E-03	2.90E-03	0.	6.59E	00	1.93E	01	2.57E	01	1.09E	01	6.29E	01
65	6.70	0.	0.	0.	1.47E-03	1.82E-03	0.	6.64E	00	2.02E	01	2.74E	01	1.12E	01	6.57E	01
66	6.80	0.	0.	0.	1.62E-03	1.24E-03	0.	6.70E	00	2.22E	01	2.80E	01	1.19E	01	6.91E	01
67	6.90	0.	0.	0.	1.89E-03	0.96E-04	0.	6.72E	00	2.30E	01	3.00E	01	1.14E	01	7.12E	01
68	7.00	0.	0.	0.	1.92E-03	2.65E-04	0.	6.75E	00	2.50E	01	3.15E	01	1.42E	00	7.29E	01
69	7.10	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
70	7.20	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
71	7.30	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
72	7.40	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
73	7.50	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
74	7.60	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
75	7.70	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
76	7.80	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
77	7.90	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
78	8.00	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
79	8.10	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
80	8.20	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
81	8.30	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
82	8.40	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
83	8.50	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
84	8.60	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
85	8.70	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
86	8.80	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
87	8.90	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
88	9.00	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
89	9.10	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
90	9.20	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
91	9.30	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
92	9.40	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
93	9.50	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
94	9.60	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
95	9.70	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
96	9.80	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
97	9.90	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
98	10.00	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
99	10.10	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
100	10.20	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
101	10.30	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01
102	10.40	0.	0.	0.	1.92E-03	0.99E-04	0.	6.72E	00	2.70E	01	3.15E	01	1.42E	00	7.29E	01

ADSORPTION CAPACITY OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES C) 2000. DENSITY (GM/CC) 1.2935-03 (1.0E 00 NORMAL)

PHOTON ENERGY RANGE E.V.	02 5-8 CONT.	02 8-11 NO. 1	NO DETA	NO GAMMA	0-2 PHOTO-DET (100%)	FREE-FREE M P.E.	0 TOTAL ABS
1 10.70 9.	0.	0.10E-04	0.	0.	1.07E-01	8.79E-02	1.75E 01
2 10.60 9.	0.	5.72E-04	0.	0.	1.07E-01	8.79E-02	1.90E 00
3 10.50 8.	0.	5.05E-04	0.	0.	1.07E-01	9.21E-02	1.91E 00
4 10.40 8.	0.	5.05E-04	0.	0.	1.07E-01	9.40E-02	1.91E 00
5 10.30 0.	0.	5.03E-04	0.	0.	1.06E-01	9.74E-02	1.92E 00
6 10.20 0.	0.	5.27E-04	0.	0.	1.06E-01	1.01E-01	1.92E 00
7 10.10 0.	0.	5.02E-04	0.	0.	1.06E-01	1.04E-01	1.91E 00
8 10.00 0.	0.	4.52E-04	0.	0.	1.06E-01	1.07E-01	1.90E 00
9 9.90 0.	0.	4.07E-04	0.	0.	1.06E-01	1.10E-01	1.90E 00
10 9.80 0.	0.	4.07E-04	0.	0.	1.06E-01	1.14E-01	1.91E 00
11 9.70 0.	0.	3.96E-04	0.	0.	1.06E-01	1.17E-01	1.92E 00
12 9.60 9.	0.	4.30E-04	0.	0.	1.06E-01	1.21E-01	1.92E 00
13 9.50 0.	0.	3.73E-04	0.	0.	1.06E-01	1.25E-01	1.93E 00
14 9.40 0.	0.	3.64E-04	0.	0.	1.06E-01	1.29E-01	1.93E 00
15 9.30 0.	0.	3.95E-04	0.	0.	1.10E-01	1.33E-01	1.94E 00
16 9.20 0.	0.	3.51E-04	0.	0.	1.10E-01	1.38E-01	1.95E 00
17 9.10 0.	0.	3.32E-04	0.	0.	1.11E-01	1.42E-01	1.97E-01
18 9.00 0.	0.	3.00E-04	0.	0.	1.11E-01	1.47E-01	1.97E-01
19 8.90 0.	0.	2.91E-04	0.	0.	1.11E-01	1.52E-01	1.96E-01
20 8.80 0.	0.	2.90E-04	0.	0.	1.12E-01	1.57E-01	1.97E-01
21 8.70 0.	0.	2.50E-04	0.	0.	1.12E-01	1.63E-01	1.95E-01
22 8.60 0.	0.	2.60E-04	0.	0.	1.13E-01	1.69E-01	1.97E-01
23 8.50 0.	0.	2.15E-04	0.	0.	1.13E-01	1.75E-01	1.95E-01
24 8.40 0.	0.	2.42E-04	0.	0.	1.14E-01	1.81E-01	1.95E-01
25 8.30 0.	0.	2.11E-04	0.	0.	1.14E-01	1.86E-01	1.95E-01
26 8.20 0.	0.	2.16E-04	0.	0.	1.15E-01	1.92E-01	1.95E-01
27 8.10 0.	0.	1.91E-04	0.	0.	1.15E-01	2.02E-01	1.95E-01
28 8.00 0.	0.	1.95E-04	0.	0.	1.16E-01	2.10E-01	1.94E-01
29 7.90 0.	0.	1.71E-04	0.	0.	1.17E-01	2.18E-01	1.93E-01
30 7.80 0.	0.	1.90E-04	0.	0.	1.17E-01	2.27E-01	1.93E-01
31 7.70 0.	0.	1.92E-04	0.	0.	1.18E-01	2.36E-01	1.90E-01
32 7.60 0.	0.	1.56E-04	0.	7.53E-09	1.18E-01	2.45E-01	1.90E-01
33 7.50 0.	0.	1.40E-04	0.	2.27E-08	1.19E-01	2.55E-01	1.91E-01
34 7.40 0.	0.	1.35E-04	0.	2.21E-07	1.20E-01	2.66E-01	1.90E-01
35 7.30 0.	0.	1.31E-04	0.	8.94E-07	1.20E-01	2.77E-01	1.91E-01
36 7.20 0.	0.	1.80E-04	0.	7.28E-06	1.22E-01	2.90E-01	1.92E-01
37 7.10 0.	0.	1.80E-04	0.	7.28E-06	1.22E-01	3.04E-01	1.93E-01
38 7.00 2.92E-08	0.	1.10E-04	0.	1.36E-05	1.23E-01	3.15E-01	1.93E-01
39 6.90 2.77E-08	0.	1.03E-04	0.	2.00E-05	1.24E-01	3.29E-01	1.94E-01
40 6.80 5.53E-08	0.	1.01E-04	0.	3.13E-05	1.25E-01	3.44E-01	1.94E-01
41 6.70 3.72E-08	0.	9.97E-05	0.	3.13E-05	1.26E-01	3.60E-01	1.94E-01
42 6.60 2.29E-08	0.	8.31E-05	0.	3.01E-05	1.27E-01	3.76E-01	1.95E-01
43 6.50 1.34E-08	0.	6.69E-05	0.	3.06E-05	1.28E-01	3.94E-01	1.96E-01
44 6.40 7.84E-09	0.	4.07E-05	1.10E-07	3.45E-05	1.29E-01	4.13E-01	1.97E-01
45 6.30 3.64E-09	0.	3.16E-05	5.31E-07	3.73E-05	1.30E-01	4.34E-01	1.97E-01
46 6.20 2.13E-09	0.	1.01E-05	9.31E-07	3.50E-05	1.31E-01	4.55E-01	1.97E-01
47 6.10 9.97E-10	0.	8.00E-06	2.24E-06	4.23E-05	1.32E-01	4.78E-01	1.94E-01
48 6.00 4.21E-10	0.	2.70E-06	2.25E-05	3.31E-06	1.33E-01	5.03E-01	1.95E-01
49 5.90 1.69E-10	0.	1.64E-07	3.31E-06	2.35E-05	1.33E-01	5.29E-01	1.97E-01
50 5.80 1.35E-11	0.	4.16E-09	4.70E-06	2.34E-05	1.33E-01	5.58E-01	1.98E-01
51 5.70 9.94E-13	0.	5.69E-06	2.34E-05	5.69E-06	1.23E-01	5.80E-01	1.18E-01

TEMPERATURE (DEGREES K) 2400. DENSITY (GM/CC) 1.293E-03 (1.0E 00 NORMAL)

PHOTON QZ 5-R ENERGY BANDS	1ST POS.	2ND POS.	W2 1ST DEG.	W2 2ND DEG.	NO BETA	NO GAMMA	NO VIB-RCY	NO	0- PHOTO-DET (10M)	FREE-FREE (10M)	N P.E.	0 P.E.	TOTAL 410	
52	5.41	6.53E-14	0.	0.	5.00E-06	3.23E-05	0.	0.	1.14E-01	6.20E-01	1.12E	00	6.37E-01	2.49E
53	5.50	0.	0.	0.	6.12E-06	2.97E-05	0.	0.	1.15E-01	6.55E-01	1.14E	00	6.43E-01	2.56E
54	5.60	0.	0.	0.	7.08E-06	2.53E-05	0.	0.	1.31E-01	7.33E-01	1.38E	00	6.50E-01	2.53E
55	5.70	0.	0.	0.	5.92E-06	3.09E-05	0.	0.	1.16E-01	7.33E-01	1.21E	00	6.50E-01	2.53E
56	5.80	0.	0.	0.	6.46E-06	2.51E-05	0.	0.	1.17E-01	7.33E-01	1.23E	00	6.48E-01	2.50E
57	5.90	0.	0.	0.	6.40E-06	3.18E-05	0.	0.	1.18E-01	6.24E-01	1.17E	00	6.48E-01	2.49E
58	5.90	6.43E-07	0.	0.	6.00E-06	3.07E-05	0.	0.	1.19E-01	6.75E-01	1.15E	00	6.48E-01	2.49E
59	6.00	6.43E-06	0.	0.	6.76E-06	3.42E-05	0.	0.	1.20E-01	6.57E-01	1.16E	00	6.73E-01	3.1E
60	6.00	3.0E-06	0.	0.	7.13E-06	3.2E-05	0.	0.	1.21E-01	6.90E-01	1.17E	00	7.10E-01	3.24E
61	6.10	4.2E-06	0.	0.	7.45E-06	2.97E-05	0.	0.	1.22E-01	6.90E-01	1.17E	00	7.35E-01	3.38E
62	6.20	6.43E-06	0.	0.	7.74E-06	2.60E-05	0.	0.	1.23E-01	1.1E	10	00	7.35E-01	3.49E
63	6.30	6.43E-06	0.	0.	7.23E-06	2.4E-05	0.	0.	1.24E-01	1.20E	10	00	7.77E-01	3.72E
64	6.40	7.0E-06	0.	0.	7.33E-06	1.38E-05	0.	0.	1.25E-01	1.20E	10	00	7.77E-01	3.72E
65	6.50	6.7E-06	0.	0.	7.12E-06	0.85E-05	0.	0.	1.26E-01	1.38E	10	00	8.21E-01	4.13E
66	6.60	6.3E-06	0.	0.	7.53E-06	5.69E-06	0.	0.	1.27E-01	1.4E	10	00	8.45E-01	4.34E
67	6.70	6.0E-06	0.	0.	7.50E-06	1.71E-05	0.	0.	1.27E-01	1.4E	10	00	8.45E-01	4.34E
68	6.80	5.7E-06	0.	0.	7.55E-06	1.27E-05	0.	0.	1.28E-01	1.72E	10	00	8.45E-01	4.34E
69	6.90	4.9E-06	0.	0.	7.95E-06	6.64E-07	0.	0.	1.27E-01	1.4E	10	00	8.45E-01	4.34E
70	7.00	5.4E-06	0.	0.	7.54E-06	0.	0.	0.	1.27E-01	2.02E	10	00	8.45E-01	4.34E
71	7.10	5.0E-06	0.	0.	7.44E-06	6.5E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
72	7.20	4.5E-06	0.	0.	7.18E-06	0.	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
73	7.30	4.3E-06	0.	0.	7.09E-06	0.	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
74	7.40	4.3E-06	0.	0.	7.18E-06	6.61E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
75	7.50	4.3E-06	0.	0.	7.27E-06	5.42E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
76	7.60	2.9E-06	0.	0.	7.09E-06	5.76E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
77	7.70	2.8E-06	0.	0.	7.09E-06	5.58E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
78	7.80	2.6E-06	0.	0.	7.27E-06	5.38E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
79	7.90	2.2E-06	0.	0.	7.45E-06	4.29E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
80	8.00	2.0E-06	0.	0.	7.45E-06	4.09E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
81	8.10	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
82	8.20	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
83	8.30	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
84	8.40	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
85	8.50	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
86	8.60	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
87	8.70	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
88	8.80	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
89	8.90	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
90	9.00	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
91	9.10	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
92	9.20	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
93	9.30	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
94	9.40	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
95	9.50	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
96	9.60	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
97	9.70	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
98	9.80	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
99	9.90	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
100	10.00	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
101	10.10	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E
102	10.20	1.6E-06	0.	0.	7.35E-06	3.68E-06	0.	0.	1.27E-01	2.0E	10	00	8.45E-01	4.34E

ABSORPTION COEFFICIENT, OF HEATED AIR (INVERSE CM.)									
TEMPERATURE (DEGREES K) 24000.									
PHOTON OR S-R ENERGY BANDS E.V.	OR S-R CONT.	NO. 1 NO. 2	NO. 3 NO. 4	NO. 5 NO. 6	NO. 7 NO. 8	NO. 9 NO. 10	NO. 11 NO. 12	NO. 13 NO. 14	NO. 15 NO. 16
1 10.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2 10.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3 10.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4 10.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5 10.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6 10.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7 10.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8 10.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9 9.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10 9.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11 9.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12 9.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13 9.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14 9.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15 9.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16 9.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17 9.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18 9.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
19 8.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
20 8.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21 8.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22 8.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
23 8.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
24 8.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
25 8.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
26 8.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
27 8.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28 8.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
29 7.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
30 7.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31 7.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
32 7.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
33 7.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34 7.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
35 7.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
36 7.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
37 7.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
38 7.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
39 6.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
40 6.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
41 6.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42 6.60 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
43 6.50 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
44 6.40 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
45 6.30 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
46 6.20 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
47 6.10 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
48 6.00 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
49 5.90 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50 5.80 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
51 5.70 0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

PHOTON 02 S-R		TEMPERATURE (DEGREES K)		DENSITY (GM/CC)		1.293E-04		1.10E-01		NORMAL		TOTAL AIR	
ENERGY BANDS	M2	1ST POS.	2ND POS.	M2	BETA	NO	NO	NO	NO	U-	FREE-PPFE	M	P.E.
										PHOTO-DET	(IONS)	P.E.	P.E.
52 5.60 4.41E-17	0.	0.	0.	6.10E-09	3.95E-08	0.	0.	7.68E-04	2.08E-02	3.01E-02	2.41E-02	2.41E-02	8.38E-12
53 5.50 0.	0.	0.	0.	7.92E-09	3.65E-08	0.	0.	7.92E-04	2.20E-02	3.00E-02	2.43E-02	2.43E-02	8.61E-12
54 5.40 0.	0.	0.	0.	7.11E-09	3.10E-08	0.	0.	7.97E-04	2.33E-02	4.01E-02	2.46E-02	2.46E-02	8.85E-12
55 5.30 0.	0.	0.	0.	7.25E-09	3.05E-08	0.	0.	5.02E-04	2.46E-02	4.00E-02	2.49E-02	2.49E-02	9.15E-12
56 5.20 0.	0.	0.	0.	7.98E-09	3.05E-08	0.	0.	8.07E-04	2.61E-02	4.00E-02	2.52E-02	2.52E-02	9.31E-12
57 5.10 0.	0.	0.	0.	7.98E-09	3.91E-08	0.	0.	8.14E-04	2.71E-02	4.00E-02	2.55E-02	2.55E-02	9.64E-12
58 5.00 9.18E-10	0.	0.	0.	7.37E-09	3.78E-08	0.	0.	8.20E-04	2.94E-02	4.00E-02	2.60E-02	2.60E-02	9.97E-12
59 4.90 2.28E-09	0.	0.	0.	6.31E-09	4.21E-08	0.	0.	8.27E-04	3.17E-02	4.00E-02	2.64E-02	2.64E-02	1.04E-11
60 4.80 4.38E-09	0.	0.	0.	9.00E-09	3.90E-08	0.	0.	8.34E-04	3.17E-02	4.00E-02	2.70E-02	2.70E-02	1.08E-11
61 4.70 6.04E-09	0.	0.	0.	9.16E-09	3.65E-08	0.	0.	8.41E-04	3.54E-02	4.00E-02	2.76E-02	2.76E-02	1.13E-11
62 4.60 8.53E-09	0.	0.	0.	9.51E-09	3.31E-08	0.	0.	8.48E-04	3.70E-02	5.10E-02	2.85E-02	2.85E-02	1.18E-11
63 4.50 5.12E-09	0.	0.	0.	1.27E-08	2.95E-08	0.	0.	8.55E-04	4.04E-02	5.07E-02	2.93E-02	2.93E-02	1.24E-11
64 4.40 9.94E-09	0.	0.	0.	3.60E-08	1.70E-08	0.	0.	8.62E-04	4.32E-02	5.06E-02	3.01E-02	3.01E-02	1.31E-11
65 4.30 9.58E-09	0.	0.	0.	1.28E-07	1.06E-08	0.	0.	8.69E-04	4.64E-02	5.08E-02	3.10E-02	3.10E-02	1.38E-11
66 4.20 9.07E-09	0.	0.	0.	3.83E-07	0.	0.	0.	8.75E-04	4.94E-02	5.08E-02	3.19E-02	3.19E-02	1.47E-11
67 4.10 8.64E-09	0.	0.	0.	1.66E-07	0.	0.	0.	8.79E-04	5.37E-02	6.03E-02	3.28E-02	3.28E-02	1.57E-11
68 4.00 8.09E-09	0.	0.	0.	5.98E-07	0.	0.	0.	8.82E-04	5.79E-02	6.03E-02	3.37E-02	3.37E-02	1.67E-11
69 3.90 7.02E-09	0.	0.	0.	2.70E-07	0.	0.	0.	8.78E-04	6.26E-02	6.03E-02	3.46E-02	3.46E-02	1.78E-11
70 3.80 7.76E-09	0.	0.	0.	4.39E-07	0.	0.	0.	8.75E-04	6.75E-02	6.03E-02	3.55E-02	3.55E-02	1.89E-11
71 3.70 7.09E-09	0.	0.	0.	4.37E-07	0.	0.	0.	8.61E-04	7.35E-02	6.04E-02	3.64E-02	3.64E-02	1.99E-11
72 3.60 6.49E-09	0.	0.	0.	3.33E-07	6.96E-08	0.	0.	8.07E-04	7.99E-02	6.05E-02	3.73E-02	3.73E-02	2.09E-11
73 3.50 6.10E-09	0.	0.	0.	4.27E-07	1.66E-08	0.	0.	7.38E-04	8.70E-02	6.04E-02	3.82E-02	3.82E-02	2.19E-11
74 3.40 5.80E-09	0.	0.	0.	2.90E-07	2.48E-08	0.	0.	4.26E-04	9.51E-02	7.07E-02	3.91E-02	3.91E-02	2.29E-11
75 3.30 4.60E-09	0.	0.	0.	2.94E-07	7.46E-08	0.	0.	4.27E-04	1.04E-01	6.03E-02	4.00E-02	4.00E-02	2.39E-11
76 3.20 4.10E-09	0.	0.	0.	2.00E-07	1.10E-08	0.	0.	4.27E-04	1.14E-01	6.03E-02	4.09E-02	4.09E-02	2.49E-11
77 3.10 4.09E-09	0.	0.	0.	1.50E-07	3.41E-08	0.	0.	4.20E-04	1.26E-01	6.03E-02	4.18E-02	4.18E-02	2.59E-11
78 3.00 3.74E-09	0.	0.	0.	9.89E-08	7.02E-08	0.	0.	4.20E-04	1.39E-01	6.03E-02	4.27E-02	4.27E-02	2.69E-11
79 2.90 3.22E-09	0.	0.	0.	6.30E-08	3.76E-08	0.	0.	4.30E-04	1.53E-01	6.03E-02	4.36E-02	4.36E-02	2.79E-11
80 2.80 3.41E-09	0.	0.	0.	3.04E-08	2.79E-08	0.	0.	4.31E-04	1.72E-01	6.03E-02	4.45E-02	4.45E-02	2.89E-11
81 2.70 3.27E-09	0.	0.	0.	1.44E-08	3.23E-08	0.	0.	4.31E-04	1.92E-01	6.03E-02	4.54E-02	4.54E-02	2.99E-11
82 2.60 1.12E-09	0.	0.	0.	8.83E-09	3.88E-07	0.	0.	4.31E-04	2.18E-01	6.03E-02	4.63E-02	4.63E-02	3.09E-11
83 2.50 7.19E-11	0.	0.	0.	6.03E-10	3.56E-07	0.	0.	4.31E-04	2.43E-01	6.03E-02	4.72E-02	4.72E-02	3.19E-11
84 2.40 0.	0.	0.	0.	2.95E-07	2.63E-11	0.	0.	4.27E-04	2.76E-01	6.03E-02	4.81E-02	4.81E-02	3.29E-11
85 2.30 0.	0.	0.	0.	6.19E-08	0.	0.	0.	4.20E-04	3.14E-01	6.03E-02	4.90E-02	4.90E-02	3.39E-11
86 2.20 0.	0.	0.	0.	2.22E-07	0.	0.	0.	4.20E-04	3.59E-01	6.03E-02	5.00E-02	5.00E-02	3.49E-11
87 2.10 0.	0.	0.	0.	4.54E-07	0.	0.	0.	4.24E-04	4.15E-01	6.03E-02	5.10E-02	5.10E-02	3.59E-11
88 2.00 0.	0.	0.	0.	5.09E-07	0.	0.	0.	4.10E-04	4.67E-01	6.03E-02	5.20E-02	5.20E-02	3.69E-11
89 1.90 0.	0.	0.	0.	5.09E-07	0.	0.	0.	3.95E-04	5.05E-01	6.03E-02	5.30E-02	5.30E-02	3.79E-11
90 1.80 0.	0.	0.	0.	4.43E-07	0.	0.	0.	3.77E-04	5.67E-01	6.03E-02	5.40E-02	5.40E-02	3.89E-11
91 1.70 0.	0.	0.	0.	4.94E-07	0.	0.	0.	3.56E-04	6.06E-01	6.03E-02	5.50E-02	5.50E-02	3.99E-11
92 1.60 0.	0.	0.	0.	3.78E-07	0.	0.	0.	3.01E-04	6.50E-01	6.03E-02	5.60E-02	5.60E-02	4.09E-11
93 1.50 0.	0.	0.	0.	4.25E-07	0.	0.	0.	1.17E-04	7.19E-01	6.03E-02	5.70E-02	5.70E-02	4.19E-11
94 1.40 0.	0.	0.	0.	4.14E-07	0.	0.	0.	0.	7.92E-01	6.03E-02	5.80E-02	5.80E-02	4.29E-11
95 1.30 0.	0.	0.	0.	3.18E-07	0.	0.	0.	0.	9.02E-01	6.03E-02	5.90E-02	5.90E-02	4.39E-11
96 1.20 0.	0.	0.	0.	3.04E-07	0.	0.	0.	0.	1.01E-01	6.03E-02	6.00E-02	6.00E-02	4.49E-11
97 1.10 0.	0.	0.	0.	2.90E-07	0.	0.	0.	0.	1.11E-01	6.03E-02	6.10E-02	6.10E-02	4.59E-11
98 1.00 0.	0.	0.	0.	2.76E-07	0.	0.	0.	0.	1.21E-01	6.03E-02	6.20E-02	6.20E-02	4.69E-11
99 0.90 0.	0.	0.	0.	2.62E-07	0.	0.	0.	0.	1.31E-01	6.03E-02	6.30E-02	6.30E-02	4.79E-11
100 0.80 0.	0.	0.	0.	1.04E-07	0.	0.	0.	0.	1.41E-01	6.03E-02	6.40E-02	6.40E-02	4.89E-11
101 0.70 0.	0.	0.	0.	2.40E-08	0.	0.	0.	0.	1.51E-01	6.03E-02	6.50E-02	6.50E-02	4.99E-11
102 0.60 0.	0.	0.	0.	6.07E-09	0.	0.	0.	0.	1.61E-01	6.03E-02	6.60E-02	6.60E-02	5.09E-11

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 24000.		DENSITY (GM/CC) 1.293E-03 (10.0E-03 NORMAL)		Q- FREE-FREE		P.E.		TOTAL AIR	
PHOTON OR S-J ENERGY BANDS E.V.	OR S-J CONT.	NO	NO BETA	NO GAMMA	NO	PHOTO-DET (10E3)	P.E.	P.E.	
1 10.70 0.	2.	1.31E-10	0.	0.	0.	1.30E-06	4.33E-05	0.37E-03	3.95E-04
2 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.10E-03	3.91E-04
3 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.20E-03	1.63E-03
4 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.21E-03	1.64E-03
5 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.22E-03	1.65E-03
6 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.23E-03	1.66E-03
7 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.24E-03	1.67E-03
8 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.25E-03	1.68E-03
9 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.26E-03	1.69E-03
10 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.27E-03	1.70E-03
11 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.28E-03	1.71E-03
12 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.29E-03	1.72E-03
13 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.30E-03	1.73E-03
14 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.31E-03	1.74E-03
15 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.32E-03	1.75E-03
16 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.33E-03	1.76E-03
17 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.34E-03	1.77E-03
18 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.35E-03	1.78E-03
19 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.36E-03	1.79E-03
20 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.37E-03	1.80E-03
21 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.38E-03	1.81E-03
22 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.39E-03	1.82E-03
23 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.40E-03	1.83E-03
24 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.41E-03	1.84E-03
25 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.42E-03	1.85E-03
26 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.43E-03	1.86E-03
27 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.44E-03	1.87E-03
28 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.45E-03	1.88E-03
29 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.46E-03	1.89E-03
30 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.47E-03	1.90E-03
31 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.48E-03	1.91E-03
32 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.49E-03	1.92E-03
33 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.50E-03	1.93E-03
34 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.51E-03	1.94E-03
35 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.52E-03	1.95E-03
36 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.53E-03	1.96E-03
37 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.54E-03	1.97E-03
38 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.55E-03	1.98E-03
39 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.56E-03	1.99E-03
40 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.57E-03	2.00E-03
41 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.58E-03	2.01E-03
42 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.59E-03	2.02E-03
43 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.60E-03	2.03E-03
44 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.61E-03	2.04E-03
45 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.62E-03	2.05E-03
46 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.63E-03	2.06E-03
47 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.64E-03	2.07E-03
48 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.65E-03	2.08E-03
49 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.66E-03	2.09E-03
50 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.67E-03	2.10E-03
51 10.00 0.	0.	1.20E-10	0.	0.	0.	1.34E-06	4.45E-05	1.68E-03	2.11E-03

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES N) 2400. DENSITY (GM/CC) 1.203E-05 (10.9E-03 NORMAL)

PHOTON 02 S-R ENERGY BANDS	M2 1ST POS.	M2 2ND POS.	M2 3RD POS.	BETA	GAMMA	NO VID-ROT	NO 2	PHOTO-DET (10/15)	FREE-FREE C.E.	N C.E.	O P.E.	TOTAL AIR
52 5.40 1.49E-20	0.	0.	0.	1.32E-12	8.50E-12	0.	0.	1.45E-06	3.09E-04	7.61E-04	3.78E-04	1.43E-03
53 5.50 0.	0.	0.	0.	1.62E-12	7.95E-12	0.	0.	1.46E-06	3.46E-04	7.62E-04	3.92E-04	1.47E-03
54 5.60 0.	0.	0.	0.	1.93E-12	7.40E-12	0.	0.	1.48E-06	3.83E-04	7.66E-04	3.66E-04	1.52E-03
55 5.70 0.	0.	0.	0.	1.97E-12	6.98E-12	0.	0.	1.47E-06	3.67E-04	8.11E-04	3.72E-04	1.57E-03
56 5.80 0.	0.	0.	0.	1.72E-12	6.56E-12	0.	0.	1.46E-06	3.67E-04	8.64E-04	3.72E-04	1.57E-03
57 5.90 0.	0.	0.	0.	1.72E-12	6.14E-12	0.	0.	1.50E-06	4.10E-04	8.66E-04	3.92E-04	1.49E-03
58 5.90 2.35E-13	0.	0.	0.	1.59E-12	6.33E-12	0.	0.	1.51E-06	4.39E-04	7.10E-04	4.08E-04	1.51E-03
59 4.90 5.20E-13	0.	0.	0.	1.76E-12	9.95E-12	0.	0.	1.52E-06	4.33E-04	7.37E-04	4.08E-04	1.61E-03
60 4.80 1.02E-12	0.	0.	0.	1.94E-12	6.94E-12	0.	0.	1.53E-06	4.93E-04	7.66E-04	4.17E-04	1.66E-03
61 4.70 1.40E-12	0.	0.	0.	1.97E-12	7.07E-12	0.	0.	1.55E-06	5.25E-04	7.99E-04	4.28E-04	1.75E-03
62 4.50 1.98E-12	0.	0.	0.	2.05E-12	7.12E-12	0.	0.	1.56E-06	5.60E-04	8.38E-04	4.40E-04	1.84E-03
63 4.50 2.11E-12	0.	0.	0.	1.91E-12	5.98E-12	0.	0.	1.57E-06	5.99E-04	8.65E-04	4.53E-04	1.94E-03
64 4.50 2.30E-12	0.	0.	0.	1.94E-12	3.95E-12	0.	0.	1.58E-06	6.41E-04	9.34E-04	4.66E-04	2.04E-03
65 4.50 2.72E-12	0.	0.	0.	1.88E-12	2.94E-12	0.	0.	1.60E-06	6.87E-04	9.67E-04	4.78E-04	2.15E-03
66 4.20 2.10E-12	0.	0.	0.	1.99E-12	1.96E-12	0.	0.	1.61E-06	7.39E-04	1.04E-03	4.92E-04	2.28E-03
67 4.10 2.08E-12	0.	0.	0.	1.98E-12	4.52E-13	0.	0.	1.62E-06	7.95E-04	1.10E-03	4.88E-04	2.32E-03
68 4.00 1.08E-12	0.	0.	0.	1.94E-12	3.34E-13	0.	0.	1.62E-06	8.58E-04	1.16E-03	2.59E-04	2.38E-03
69 3.90 1.43E-12	0.	0.	0.	1.95E-12	1.33E-13	0.	0.	1.62E-06	9.27E-04	1.17E-03	2.78E-04	2.36E-03
70 3.80 1.66E-12	0.	0.	0.	1.96E-12	1.96E-12	0.	0.	1.61E-06	1.00E-03	1.19E-03	2.91E-04	2.48E-03
71 3.70 1.66E-12	0.	0.	0.	1.78E-12	0.	0.	0.	1.58E-06	1.08E-03	1.06E-03	3.16E-04	2.48E-03
72 3.60 1.91E-12	0.	0.	0.	1.98E-12	0.	0.	0.	1.48E-06	1.18E-03	1.13E-03	3.44E-04	2.68E-03
73 3.50 1.91E-12	0.	0.	0.	1.98E-12	0.	0.	0.	1.36E-06	1.29E-03	1.21E-03	3.76E-04	2.87E-03
74 3.40 1.09E-12	0.	0.	0.	1.79E-12	0.	0.	0.	7.83E-07	1.41E-03	1.32E-03	4.11E-04	3.12E-03
75 3.30 1.09E-12	0.	0.	0.	1.79E-12	0.	0.	0.	7.84E-07	1.54E-03	1.44E-03	4.48E-04	3.45E-03
76 3.20 9.42E-13	0.	0.	0.	1.90E-12	1.52E-12	0.	0.	7.84E-07	1.70E-03	1.57E-03	4.97E-04	3.75E-03
77 3.10 9.42E-13	0.	0.	0.	1.95E-12	1.47E-12	0.	0.	7.88E-07	1.87E-03	1.70E-03	5.28E-04	4.09E-03
78 3.00 8.62E-13	0.	0.	0.	1.97E-12	1.47E-12	0.	0.	7.90E-07	2.06E-03	1.83E-03	5.85E-04	4.40E-03
79 2.90 7.47E-13	0.	0.	0.	1.28E-12	1.12E-12	0.	0.	7.91E-07	2.29E-03	1.97E-03	6.13E-04	4.68E-03
80 2.80 7.91E-13	0.	0.	0.	6.08E-12	8.16E-13	0.	0.	7.92E-07	2.55E-03	2.14E-03	6.52E-04	5.35E-03
81 2.70 5.27E-13	0.	0.	0.	2.88E-12	5.43E-09	4.66E-13	0.	7.92E-07	2.85E-03	2.31E-03	7.18E-04	5.88E-03
82 2.60 3.59E-13	0.	0.	0.	1.34E-12	5.93E-10	2.13E-13	0.	7.92E-07	3.20E-03	2.66E-03	7.72E-04	6.24E-03
83 2.50 1.85E-14	0.	0.	0.	1.36E-13	5.20E-14	0.	0.	7.92E-07	3.61E-03	2.86E-03	8.32E-04	6.76E-03
84 2.40 0.	5.89E-12	0.	0.	4.27E-10	5.66E-15	0.	0.	7.92E-07	4.08E-03	2.97E-03	8.88E-04	7.66E-03
85 2.30 0.	1.69E-11	0.	0.	0.	0.	0.	0.	7.88E-07	4.65E-03	2.78E-03	7.16E-04	9.14E-03
86 2.20 0.	4.52E-11	0.	0.	0.	0.	0.	0.	7.93E-07	5.32E-03	3.26E-03	8.49E-04	9.44E-03
87 2.10 0.	4.52E-11	0.	0.	0.	0.	0.	0.	7.79E-07	6.14E-03	3.79E-03	9.92E-04	1.04E-02
88 2.00 0.	9.07E-11	0.	0.	0.	0.	0.	0.	7.54E-07	7.14E-03	4.30E-03	1.12E-03	1.26E-02
89 1.90 0.	1.82E-10	0.	0.	0.	0.	0.	0.	7.26E-07	8.37E-03	4.92E-03	1.31E-03	1.44E-02
90 1.80 0.	8.86E-11	0.	0.	0.	0.	0.	0.	6.94E-07	9.89E-03	5.67E-03	1.60E-03	1.76E-02
91 1.70 0.	9.88E-11	0.	0.	0.	0.	0.	0.	6.54E-07	1.18E-02	7.02E-03	1.95E-03	2.08E-02
92 1.60 0.	9.57E-11	0.	0.	0.	0.	0.	0.	4.53E-07	1.42E-02	8.18E-03	2.29E-03	2.47E-02
93 1.50 0.	8.50E-11	0.	0.	0.	0.	0.	0.	2.51E-07	1.73E-02	1.06E-02	2.77E-03	3.97E-02
94 1.40 0.	8.32E-11	0.	0.	0.	0.	0.	0.	0.	2.13E-02	1.32E-02	3.15E-03	3.76E-02
95 1.30 0.	6.37E-11	0.	0.	0.	0.	0.	0.	0.	2.44E-02	1.78E-02	4.34E-03	4.49E-02
96 1.20 0.	6.07E-11	0.	0.	0.	0.	0.	0.	0.	3.43E-02	2.02E-02	4.37E-03	5.96E-02
97 1.10 0.	5.96E-11	0.	0.	0.	0.	0.	0.	0.	4.49E-02	2.46E-02	5.44E-03	7.46E-02
98 1.00 0.	5.91E-11	0.	0.	0.	0.	0.	0.	0.	6.03E-02	2.97E-02	6.21E-03	9.61E-02
99 0.90 0.	4.91E-11	0.	0.	0.	0.	0.	0.	0.	8.39E-02	3.42E-02	7.72E-03	1.25E-01
100 0.80 0.	2.11E-11	0.	0.	0.	0.	0.	0.	0.	1.20E-01	3.94E-02	8.35E-03	1.68E-01
101 0.70 0.	4.86E-12	0.	0.	0.	0.	0.	0.	0.	1.82E-01	4.23E-02	8.08E-03	2.35E-01
102 0.60 0.	1.21E-12	0.	0.	0.	0.	0.	0.	0.	2.95E-01	4.73E-02	9.17E-03	3.51E-01

ABSORPTION COEFFICIENT OF HEATED AIR (INVERSE CM.)									
TEMPERATURE (DEGREES K) 2400.			DENSITY (GM/CC) 1.293E-06 (10.0E-04 NORMAL)						
			Q-		FREE-FREE		TOTAL AIR		
			PHOTO-DET (IONS)		P.E.		P.E.		
			NO		P.E.		P.E.		
			NO		P.E.		P.E.		
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			NO		P.E.		P.E.		
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			NO		P.E.		P.E.		
			NO		P.E.		P.E.		
			NO		P.E.		P.E.		

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K) 24000. DENSITY (GM/CC) 1.293E-06 (10-0E-04 NORMAL)

PHOTON ENERGY BANDS	Q2 S-B	M2	M2 POS.	2ND POS.	1ST NFG.	M2	BETA	NO	GAMMA	NO	VIB-ROT	NO	0-PMON-DET (TOMS)	N	P.E.	0	TOTAL AIR
52	5.60	1.04E-24	0.	0.	0.	0.	1.55E-10	9.71E-16	0.	0.	0.	0.	1.77E-09	4.19E-04	2.68E-05	5.37E-06	3.63E-05
53	5.50	0.	0.	0.	0.	0.	1.65E-10	9.98E-16	0.	0.	0.	0.	1.78E-09	4.39E-04	2.78E-05	5.46E-06	3.76E-05
54	5.40	0.	0.	0.	0.	0.	1.75E-10	7.44E-16	0.	0.	0.	0.	1.79E-09	4.59E-04	2.89E-05	5.55E-06	3.91E-05
55	5.30	0.	0.	0.	0.	0.	1.78E-10	9.39E-16	0.	0.	0.	0.	1.80E-09	4.91E-04	1.42E-05	5.66E-06	2.48E-05
56	5.20	0.	0.	0.	0.	0.	1.94E-10	7.39E-16	0.	0.	0.	0.	1.84E-09	5.20E-04	1.44E-05	4.79E-06	2.49E-05
57	5.10	0.	0.	0.	0.	0.	1.94E-10	9.61E-16	0.	0.	0.	0.	1.84E-09	5.52E-04	1.55E-05	4.89E-06	2.59E-05
58	5.00	2.03E-17	0.	0.	0.	0.	1.81E-10	9.29E-16	0.	0.	0.	0.	1.84E-09	5.86E-04	1.62E-05	4.98E-06	2.70E-05
59	4.90	6.95E-17	0.	0.	0.	0.	2.05E-10	1.03E-15	0.	0.	0.	0.	1.86E-09	6.23E-04	1.69E-05	5.09E-06	2.82E-05
60	4.80	1.26E-16	0.	0.	0.	0.	2.22E-10	9.81E-16	0.	0.	0.	0.	1.87E-09	6.61E-04	1.76E-05	5.21E-06	2.94E-05
61	4.70	1.74E-16	0.	0.	0.	0.	2.25E-10	9.00E-16	0.	0.	0.	0.	1.89E-09	7.04E-04	1.85E-05	5.37E-06	3.10E-05
62	4.60	2.05E-16	0.	0.	0.	0.	2.34E-10	8.14E-16	0.	0.	0.	0.	1.90E-09	7.49E-04	1.97E-05	5.53E-06	3.26E-05
63	4.50	2.62E-16	0.	0.	0.	0.	2.19E-10	6.16E-16	0.	0.	0.	0.	1.92E-09	8.06E-04	2.10E-05	5.70E-06	3.43E-05
64	4.40	2.95E-16	0.	0.	0.	0.	2.22E-10	4.17E-16	0.	0.	0.	0.	1.93E-09	8.62E-04	2.23E-05	5.72E-06	3.60E-05
65	4.30	2.75E-16	0.	0.	0.	0.	2.19E-10	2.66E-16	0.	0.	0.	0.	1.93E-09	9.24E-04	2.36E-05	5.91E-06	3.80E-05
66	4.20	2.68E-16	0.	0.	0.	0.	2.20E-10	1.81E-16	0.	0.	0.	0.	1.95E-09	9.94E-04	2.51E-05	6.12E-06	4.12E-05
67	4.10	2.48E-16	0.	0.	0.	0.	2.27E-10	5.17E-17	0.	0.	0.	0.	1.97E-09	1.07E-05	2.67E-05	6.14E-06	4.35E-05
68	4.06	2.32E-16	0.	0.	0.	0.	2.22E-10	1.89E-17	0.	0.	0.	0.	1.97E-09	1.15E-05	2.83E-05	6.37E-06	4.59E-05
69	3.98	2.01E-16	0.	0.	0.	0.	2.16E-10	1.40E-17	0.	0.	0.	0.	1.97E-09	1.25E-05	2.92E-05	6.91E-06	4.76E-05
70	3.88	2.05E-16	0.	0.	0.	0.	2.22E-10	2.01E-16	0.	0.	0.	0.	1.98E-09	1.35E-05	2.87E-05	4.10E-06	4.93E-05
71	3.78	2.04E-16	0.	0.	0.	0.	2.22E-10	2.01E-16	0.	0.	0.	0.	1.98E-09	1.45E-05	3.02E-05	4.43E-06	4.92E-05
72	3.60	1.80E-16	0.	0.	0.	0.	2.17E-10	1.77E-16	0.	0.	0.	0.	1.98E-09	1.55E-05	3.19E-05	4.79E-06	5.26E-05
73	3.50	1.77E-16	0.	0.	0.	0.	2.14E-10	1.94E-16	0.	0.	0.	0.	1.98E-09	1.75E-05	3.37E-05	5.20E-06	5.43E-05
74	3.40	1.66E-16	0.	0.	0.	0.	2.14E-10	2.00E-16	0.	0.	0.	0.	1.99E-09	1.89E-05	3.61E-05	5.63E-06	6.07E-05
75	3.30	1.35E-16	0.	0.	0.	0.	2.15E-10	1.64E-16	0.	0.	0.	0.	1.99E-09	2.07E-05	3.85E-05	6.10E-06	6.54E-05
76	3.20	1.28E-16	0.	0.	0.	0.	2.15E-10	1.74E-16	0.	0.	0.	0.	1.99E-09	2.24E-05	4.15E-05	6.40E-06	7.09E-05
77	3.10	1.17E-16	0.	0.	0.	0.	2.16E-10	1.68E-16	0.	0.	0.	0.	1.99E-09	2.51E-05	4.47E-05	7.17E-06	7.69E-05
78	3.00	1.07E-16	0.	0.	0.	0.	2.08E-10	1.12E-16	0.	0.	0.	0.	1.99E-09	2.77E-05	4.78E-05	7.71E-06	8.33E-05
79	2.90	9.29E-17	0.	0.	0.	0.	1.33E-10	9.06E-17	0.	0.	0.	0.	1.99E-09	3.06E-05	5.11E-05	8.32E-06	9.32E-05
80	2.80	9.06E-17	0.	0.	0.	0.	6.42E-10	4.45E-12	9.33E-17	0.	0.	0.	1.99E-09	3.43E-05	5.47E-05	9.00E-06	9.79E-05
81	2.71	6.53E-17	0.	0.	0.	0.	3.84E-10	5.23E-12	5.12E-17	0.	0.	0.	1.99E-09	3.83E-05	5.68E-05	9.51E-06	1.06E-04
82	2.60	3.21E-17	0.	0.	0.	0.	1.46E-10	5.71E-13	2.44E-17	0.	0.	0.	1.99E-09	4.29E-05	6.03E-05	1.02E-05	9.18E-05
83	2.50	2.20E-16	0.	0.	0.	0.	1.46E-10	5.71E-13	5.95E-16	0.	0.	0.	1.99E-09	4.85E-05	6.28E-05	7.39E-06	9.66E-05
84	2.40	0.	0.	0.	0.	0.	4.38E-13	6.47E-19	0.	0.	0.	0.	1.99E-09	5.48E-05	6.28E-05	8.27E-06	1.06E-04
85	2.30	0.	0.	0.	0.	0.	1.73E-15	0.	0.	0.	0.	0.	1.99E-09	6.24E-05	4.99E-05	9.31E-06	1.22E-04
86	2.20	0.	0.	0.	0.	0.	4.09E-15	0.	0.	0.	0.	0.	1.99E-09	7.14E-05	5.72E-05	1.09E-05	1.40E-04
87	2.10	0.	0.	0.	0.	0.	4.09E-15	0.	0.	0.	0.	0.	1.99E-09	8.24E-05	6.48E-05	1.26E-05	1.60E-04
88	2.00	0.	0.	0.	0.	0.	9.57E-15	0.	0.	0.	0.	0.	1.99E-09	9.44E-05	7.24E-05	1.42E-05	1.82E-04
89	1.90	0.	0.	0.	0.	0.	1.75E-14	0.	0.	0.	0.	0.	1.99E-09	1.15E-04	8.12E-05	1.65E-05	2.18E-04
90	1.80	0.	0.	0.	0.	0.	9.39E-15	0.	0.	0.	0.	0.	1.99E-09	1.35E-04	9.37E-05	1.90E-05	2.46E-04
91	1.70	0.	0.	0.	0.	0.	1.84E-14	0.	0.	0.	0.	0.	1.99E-09	1.59E-04	1.07E-04	2.39E-05	2.89E-04
92	1.60	0.	0.	0.	0.	0.	7.99E-15	0.	0.	0.	0.	0.	1.99E-09	1.96E-04	1.22E-04	2.79E-05	3.40E-04
93	1.50	0.	0.	0.	0.	0.	8.07E-15	0.	0.	0.	0.	0.	1.99E-09	2.32E-04	1.49E-04	3.33E-05	4.14E-04
94	1.40	0.	0.	0.	0.	0.	8.70E-15	0.	0.	0.	0.	0.	1.99E-09	2.80E-04	1.73E-04	3.95E-05	4.98E-04
95	1.30	0.	0.	0.	0.	0.	8.72E-15	0.	0.	0.	0.	0.	1.99E-09	3.59E-04	2.17E-04	4.74E-05	6.13E-04
96	1.20	0.	0.	0.	0.	0.	4.18E-15	0.	0.	0.	0.	0.	1.99E-09	4.59E-04	2.77E-04	4.90E-05	7.36E-04
97	1.10	0.	0.	0.	0.	0.	6.31E-15	0.	0.	0.	0.	0.	1.99E-09	6.05E-04	2.75E-04	6.20E-05	9.38E-04
98	1.00	0.	0.	0.	0.	0.	5.91E-15	0.	0.	0.	0.	0.	1.99E-09	8.06E-04	3.30E-04	7.00E-05	1.21E-03
99	0.90	0.	0.	0.	0.	0.	4.70E-15	0.	0.	0.	0.	0.	1.99E-09	1.11E-03	3.78E-04	8.26E-05	1.59E-03
100	0.80	0.	0.	0.	0.	0.	2.23E-15	0.	0.	0.	0.	0.	1.99E-09	1.61E-03	4.33E-04	9.49E-05	2.13E-03
101	0.70	0.	0.	0.	0.	0.	5.07E-16	0.	0.	0.	0.	0.	1.99E-09	2.43E-03	4.64E-04	9.31E-05	2.69E-03
102	0.60	0.	0.	0.	0.	0.	1.20E-16	0.	0.	0.	0.	0.	1.99E-09	3.93E-03	4.75E-04	1.84E-04	4.51E-03

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES F)		DENSITY (GM/CC)		1.293X-07 (10-06-05 NORMAL)		Q- FREE-FREE W		P.E.		TOTAL AIR	
PHOTON ENERGY E.V.	Q2 1-4 CONT.	NO. 1	NO. 2	AD GAMMA	NO. 1	NO. 2	Q- FREE-FREE W	P.E.	P.E.	0	P.E.
1 10.70 0.	0.	0.53E-19	0.	0.	0.	2.41E-12	1.29E-04	1.00E-06	9.15E-08	1.99E-06	
2 10.04 0.	0.	7.91E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.14E-08	2.02E-06	
3 10.04 0.	0.	6.00E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
4 10.04 0.	0.	7.01E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
5 10.04 0.	0.	6.99E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
6 10.04 0.	0.	7.20E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
7 10.04 0.	0.	6.94E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
8 10.04 0.	0.	6.79E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
9 9.94 0.	0.	6.04E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
10 9.94 0.	0.	5.10E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
11 9.70 0.	0.	5.47E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
12 9.64 0.	0.	5.93E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
13 9.50 0.	0.	5.21E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
14 9.40 0.	0.	5.03E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
15 9.20 0.	0.	5.10E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
16 9.20 0.	0.	4.44E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
17 9.10 0.	0.	4.50E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
18 9.00 0.	0.	4.25E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
19 8.90 0.	0.	4.02E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
20 8.71 0.	0.	3.90E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
21 8.71 0.	0.	3.54E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
22 8.60 0.	0.	3.70E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
23 8.60 0.	0.	3.35E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
24 8.40 0.	0.	2.35E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
25 8.30 0.	0.	2.92E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
26 8.20 0.	0.	2.60E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
27 8.10 0.	0.	2.60E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
28 8.00 0.	0.	2.37E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
29 7.90 0.	0.	2.40E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
30 7.80 0.	0.	2.24E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
31 7.70 0.	0.	2.10E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
32 7.60 0.	0.	2.09E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
33 7.50 0.	0.	1.87E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
34 7.40 0.	0.	1.81E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
35 7.30 0.	0.	1.64E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
36 7.20 0.	0.	1.60E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
37 7.10 0.	0.	1.52E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
38 7.00 0.	0.	1.42E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
39 6.90 0.	0.	1.40E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
40 6.80 0.	0.	1.24E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
41 6.70 0.	0.	1.25E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
42 6.60 0.	0.	1.19E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
43 6.50 0.	0.	1.09E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
44 6.40 0.	0.	1.05E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
45 6.30 0.	0.	1.05E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
46 6.20 0.	0.	1.11E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
47 6.10 0.	0.	1.22E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
48 6.00 0.	0.	1.21E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
49 5.90 0.	0.	1.30E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
50 5.80 0.	0.	1.20E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	
51 5.70 0.	0.	1.15E-19	0.	0.	0.	2.42E-12	1.29E-04	1.01E-06	9.13E-08	2.02E-06	

ABSORPTION COEFFICIENTS OF HEATED AIR (INVERSE CM.)

TEMPERATURE (DEGREES K)				DENSITY (G/CC)				1.203E-07 (10.0E-05 NORMAL)					
PACIION QP 5-R		N2	N2+	NO	NO	NO	NO	0-	PMOTG-DER	N	0	TOTAL AIR	
ENERGY RANGS		1ST POS.	2ND POS.	1ST NEG.	2ND NEG.	GAMMA	VIB-ROT	PMOTG-DER	(IONS)	P.E.	P.E.		
53	5.50 3.30E-20	0.	0.	1.34E-20	0.64E-20	0.	0.	2.58E-12	9.15E-04	4.70E-07	8.37E-04	6.54E-07	
54	5.50 6.	0.	0.	1.05E-20	7.95E-20	0.	0.	2.58E-12	9.15E-04	5.07E-07	8.58E-04	6.89E-07	
55	5.50 6.	0.	0.	1.35E-20	7.95E-20	0.	0.	2.58E-12	1.05E-07	5.07E-07	8.58E-04	7.27E-07	
56	5.50 6.	0.	0.	1.98E-20	3.1E-20	0.	0.	2.62E-12	1.15E-07	5.97E-07	9.17E-04	7.66E-07	
57	5.50 6.	0.	0.	1.75E-20	3.1E-20	0.	0.	2.64E-12	1.15E-07	5.97E-07	9.17E-04	8.04E-07	
58	5.50 3.30E-21	0.	0.	1.63E-20	0.24E-20	0.	0.	2.66E-12	1.21E-07	6.27E-07	9.82E-04	8.47E-07	
59	5.50 4.41E-21	0.	0.	1.92E-20	0.24E-20	0.	0.	2.68E-12	1.29E-07	6.59E-07	1.01E-07	8.88E-07	
60	5.50 4.41E-21	0.	0.	1.92E-20	0.24E-20	0.	0.	2.70E-12	1.37E-07	6.90E-07	1.05E-07	9.30E-07	
61	5.50 2.73E-20	0.	0.	2.06E-20	7.95E-20	0.	0.	2.73E-12	1.45E-07	7.19E-07	9.57E-04	9.60E-07	
62	5.50 3.14E-20	0.	0.	2.06E-20	7.95E-20	0.	0.	2.75E-12	1.53E-07	7.63E-07	8.66E-04	1.02E-06	
63	5.50 3.36E-20	0.	0.	4.07E-20	3.44E-20	0.	0.	2.77E-12	1.65E-07	7.95E-07	1.08E-07	1.09E-06	
64	5.50 3.36E-20	0.	0.	1.67E-19	0.	0.	0.	2.81E-12	1.89E-07	9.34E-07	1.13E-07	1.24E-06	
65	5.50 3.36E-20	0.	0.	1.67E-19	0.	0.	0.	2.84E-12	2.03E-07	9.93E-07	1.16E-07	1.31E-06	
66	5.50 3.36E-20	0.	0.	4.08E-19	0.	0.	0.	2.86E-12	2.15E-07	1.05E-06	1.14E-07	1.40E-06	
67	5.50 3.36E-20	0.	0.	2.41E-19	0.	0.	0.	2.87E-12	2.15E-07	1.15E-06	1.11E-07	1.47E-06	
68	5.50 2.95E-20	0.	0.	7.75E-19	0.	0.	0.	2.88E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06	
69	5.50 2.95E-20	0.	0.	3.91E-19	5.46E-19	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06	
70	5.50 2.95E-20	0.	0.	3.71E-19	5.46E-19	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06	
71	5.50 2.95E-20	0.	0.	5.08E-19	1.08E-15	1.79E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
72	5.50 2.95E-20	0.	0.	4.33E-19	5.11E-15	1.93E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
73	5.50 2.95E-20	0.	0.	5.59E-19	0.44E-15	1.57E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
74	5.50 2.95E-20	0.	0.	3.79E-19	1.33E-15	1.70E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
75	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
76	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
77	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
78	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
79	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
80	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
81	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
82	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
83	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
84	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
85	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
86	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
87	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
88	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
89	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
90	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
91	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
92	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
93	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
94	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
95	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
96	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
97	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
98	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
99	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
100	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
101	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06
102	5.50 2.95E-20	0.	0.	2.80E-19	5.70E-15	1.48E-20	0.	0.	2.87E-12	2.31E-07	1.26E-06	1.08E-07	1.56E-06

TEMPERATURE (DEGREES K) 2400. DEPTH (CM) 1.293E-06 : 1.0E-05 NORMAL

[illegible]

[illegible]

	O2 S-H	H2 B-M	N0 -	N0 -	PAGE-PRICE	n	TOTAL AID
	CENT,	NQ. 1	GASTA	GAMMA	PHOTO-SAT (10x5)	P.E.	P.E.
FUNCTION O2 S-H							
MERGER SAIDS							

420

TEMPERATURE (DEGREES K) 24300. DENSITY (GM/CC) 1.293E-09 (1.0E-06 NORMAL)

[illegible]

2. Mean Absorption Coefficients

a) Total and Cut-off Planck Mean Absorption Coefficients

The "emission" or "Planck" mean absorption coefficient is defined by (see also Section 3.2, Eq. 46)

$$\bar{\mu}_p(T) \equiv \frac{\int_0^{\infty} \mu'(\nu) B_\nu(T) d\nu}{\int_0^{\infty} B_\nu(T) d\nu} = \frac{\pi}{\sigma T^4} \int_0^{\infty} \mu'(\nu) B_\nu(T) d\nu$$

where $\mu' = \mu(\nu) \left(1 - e^{-\frac{h\nu}{kT}}\right)$ has a term to account for re-emission, $B_\nu(T)$ is the usual Planck blackbody function, and ν is the frequency or equivalent photon energy expressed in units cm^{-1} . Upon substitution for $B_\nu(T)$ and $\mu'(\nu)$ in the integral and with change of variable $x = h\nu/kT$ the above expression becomes

$$\bar{\mu}_p(T) = \frac{\pi^4}{15} \int_0^{\infty} \mu(x) x^3 e^{-x} dx$$

For digital computer use this is approximated:

$$\bar{\mu}_p(T) = \frac{\pi^4}{15} \sum_j \mu_j(x_j) x_j^3 e^{-x_j} \Delta x_j$$

where j is summed over all spectral intervals to be included.

Listed in Table C.2.a) are the total and continuum Planck mean absorption coefficients in units cm^{-1} for heated air for various temperatures

and densities. The input of required absorption coefficients is discussed under the partial Planck mean absorption coefficient table construction, since the actual computation of the total, cut-off, and partial Planck means (as well as the Rosseland mean free paths) was carried out with the aid of a single integrated computer program.

"Cut-off" Planck mean absorption coefficients are included in the same table as the total and continuum values and may be identified by their "key" integer. The cut-off key and recipe for calculation are summarized below:

<u>Integer Appearing in Tables</u>	<u>Computational Meaning as Applied to Sum in Last Expression:</u>
1	If $\mu_j(x_j) \geq 1 \text{ cm}^{-1}$ set $\mu_j = 0$ in Σ_j
2	If $\mu_j(x_j) \geq 10^{-1} \text{ cm}^{-1}$ set $\mu_j = 0$ in Σ_j
3	If $\mu_j(x_j) \geq 10^{-2} \text{ cm}^{-1}$ set $\mu_j = 0$ in Σ_j
4	If $\mu_j(x_j) \geq 10^{-3} \text{ cm}^{-1}$ set $\mu_j = 0$ in Σ_j
5	If $\mu_j(x_j) \geq 10^{-4} \text{ cm}^{-1}$ set $\mu_j = 0$ in Σ_j
6	If $\mu_j(x_j) \geq 10^{-5} \text{ cm}^{-1}$ set $\mu_j = 0$ in Σ_j

It is frequently desirable to obtain a rough estimate of the amount of radiative energy flow and deposition in gas samples that are not optically thin at all frequencies. In order to obtain such an estimate with a minimum of effort the spectral detail of the absorptive coefficient sometimes is ignored and the total Planck mean absorption coefficient is employed in the calculation. A semi-quantitative estimate of the error involved in this procedure may be obtained through inspection of the "cut-off" Planck values. Since these are listed for cut-offs which decrease sequentially by one order of magnitude, significant change in the "cut-off" absorption coefficient between two cut-off

values indicates that the spectral absorption coefficient has an effective value in between the two "cut-off" values over an appreciable frequency region in the vicinity of the Planckian maximum. The product of this "effective" absorption coefficient value and the path length of the gas then gives an indication of the extent of violation of the applicability of the procedure.

TOTAL AND CUT-OFF PLANCY MEAN ABSORPTION COEFFICIENT S

TEMPERATURE C (DEG. K)	1.0E 01	DENSITY (TIMES NORMAL)			10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
		1.0E 00	1.0E 01	1.0E 02					
1000. TOTAL	1.04E-05	1.04E-06	1.04E-07	1.04E-08	1.04E-09	1.04E-10	1.04E-11	1.04E-12	1.04E-13
CONT.	9.42E-10	9.42E-11	9.42E-12	9.42E-13	9.42E-14	9.42E-15	9.42E-16	9.42E-17	9.42E-18
1	1.04E-05	1.04E-06	1.04E-07	1.04E-08	1.04E-09	1.04E-10	1.04E-11	1.04E-12	1.04E-13
2	1.04E-05	1.04E-06	1.04E-07	1.04E-08	1.04E-09	1.04E-10	1.04E-11	1.04E-12	1.04E-13
3	1.04E-05	1.04E-06	1.04E-07	1.04E-08	1.04E-09	1.04E-10	1.04E-11	1.04E-12	1.04E-13
4	1.04E-05	1.04E-06	1.04E-07	1.04E-08	1.04E-09	1.04E-10	1.04E-11	1.04E-12	1.04E-13
5	1.04E-05	1.04E-06	1.04E-07	1.04E-08	1.04E-09	1.04E-10	1.04E-11	1.04E-12	1.04E-13
6	1.04E-05	1.04E-06	1.04E-07	1.04E-08	1.04E-09	1.04E-10	1.04E-11	1.04E-12	1.04E-13
2000. TOTAL	1.20E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.11E-09	1.01E-10	9.79E-11
CONT.	4.04E-05	1.20E-06	4.03E-08	1.27E-09	4.00E-11	1.24E-12	3.71E-14	1.01E-16	1.01E-17
1	1.20E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.11E-09	1.01E-10	9.79E-11
2	1.20E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.11E-09	1.01E-10	9.79E-11
3	1.20E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.11E-09	1.01E-10	9.79E-11
4	1.20E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.11E-09	1.01E-10	9.79E-11
5	1.20E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.11E-09	1.01E-10	9.79E-11
6	1.20E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.11E-09	1.01E-10	9.79E-11
3000. TOTAL	3.66E-03	3.06E-04	2.71E-05	2.33E-06	1.60E-07	7.19E-09	2.45E-10	7.66E-12	7.66E-13
CONT.	1.11E-03	3.43E-05	1.91E-06	2.33E-08	4.13E-10	3.24E-12	2.65E-14	1.89E-16	1.89E-17
1	3.66E-03	3.06E-04	2.71E-05	2.33E-06	1.60E-07	7.19E-09	2.45E-10	7.66E-12	7.66E-13
2	3.66E-03	3.06E-04	2.71E-05	2.33E-06	1.60E-07	7.19E-09	2.45E-10	7.66E-12	7.66E-13
3	3.66E-03	3.06E-04	2.71E-05	2.33E-06	1.60E-07	7.19E-09	2.45E-10	7.66E-12	7.66E-13
4	3.66E-03	3.06E-04	2.71E-05	2.33E-06	1.60E-07	7.19E-09	2.45E-10	7.66E-12	7.66E-13
5	3.66E-03	3.06E-04	2.71E-05	2.33E-06	1.60E-07	7.19E-09	2.45E-10	7.66E-12	7.66E-13
6	3.66E-03	3.06E-04	2.71E-05	2.33E-06	1.60E-07	7.19E-09	2.45E-10	7.66E-12	7.66E-13
4000. TOTAL	1.28E-02	6.04E-04	4.24E-05	1.51E-06	4.70E-08	1.61E-09	6.55E-11	3.27E-12	3.27E-13
CONT.	4.54E-04	1.29E-06	2.63E-08	4.12E-09	5.38E-10	7.00E-12	1.18E-13	1.66E-15	1.66E-16
1	1.28E-02	6.04E-04	4.24E-05	1.51E-06	4.70E-08	1.61E-09	6.55E-11	3.27E-12	3.27E-13
2	1.28E-02	6.04E-04	4.24E-05	1.51E-06	4.70E-08	1.61E-09	6.55E-11	3.27E-12	3.27E-13
3	1.28E-02	6.04E-04	4.24E-05	1.51E-06	4.70E-08	1.61E-09	6.55E-11	3.27E-12	3.27E-13
4	1.28E-02	6.04E-04	4.24E-05	1.51E-06	4.70E-08	1.61E-09	6.55E-11	3.27E-12	3.27E-13
5	1.28E-02	6.04E-04	4.24E-05	1.51E-06	4.70E-08	1.61E-09	6.55E-11	3.27E-12	3.27E-13
6	1.28E-02	6.04E-04	4.24E-05	1.51E-06	4.70E-08	1.61E-09	6.55E-11	3.27E-12	3.27E-13
5000. TOTAL	5.98E-02	2.69E-03	8.35E-05	2.87E-06	1.35E-07	7.57E-09	3.45E-10	9.83E-12	9.83E-13
CONT.	1.61E-02	4.40E-04	8.07E-06	1.25E-07	1.95E-09	3.08E-11	5.04E-13	1.09E-14	1.09E-15
1	5.98E-02	2.69E-03	8.35E-05	2.87E-06	1.35E-07	7.57E-09	3.45E-10	9.83E-12	9.83E-13
2	5.98E-02	2.69E-03	8.35E-05	2.87E-06	1.35E-07	7.57E-09	3.45E-10	9.83E-12	9.83E-13
3	5.98E-02	2.69E-03	8.35E-05	2.87E-06	1.35E-07	7.57E-09	3.45E-10	9.83E-12	9.83E-13
4	5.98E-02	2.69E-03	8.35E-05	2.87E-06	1.35E-07	7.57E-09	3.45E-10	9.83E-12	9.83E-13
5	5.98E-02	2.69E-03	8.35E-05	2.87E-06	1.35E-07	7.57E-09	3.45E-10	9.83E-12	9.83E-13
6	5.98E-02	2.69E-03	8.35E-05	2.87E-06	1.35E-07	7.57E-09	3.45E-10	9.83E-12	9.83E-13
6000. TOTAL	1.55E-01	5.79E-03	2.13E-04	1.01E-05	4.63E-07	1.50E-08	3.54E-10	1.11E-11	1.11E-12
CONT.	3.61E-02	1.02E-04	1.69E-06	3.15E-07	7.24E-09	4.05E-10	1.47E-11	3.24E-12	3.24E-13
1	1.55E-01	5.79E-03	2.13E-04	1.01E-05	4.63E-07	1.50E-08	3.54E-10	1.11E-11	1.11E-12
2	1.55E-01	5.79E-03	2.13E-04	1.01E-05	4.63E-07	1.50E-08	3.54E-10	1.11E-11	1.11E-12
3	1.55E-01	5.79E-03	2.13E-04	1.01E-05	4.63E-07	1.50E-08	3.54E-10	1.11E-11	1.11E-12
4	1.55E-01	5.79E-03	2.13E-04	1.01E-05	4.63E-07	1.50E-08	3.54E-10	1.11E-11	1.11E-12
5	1.55E-01	5.79E-03	2.13E-04	1.01E-05	4.63E-07	1.50E-08	3.54E-10	1.11E-11	1.11E-12
6	1.55E-01	5.79E-03	2.13E-04	1.01E-05	4.63E-07	1.50E-08	3.54E-10	1.11E-11	1.11E-12

TOTAL AND CUT-OFF PLANK MEAN ABSORPTION COEFFICIENTS

TEMPERATURE °C (DEG. C)	1.0E 01	1.0E 00	DENSITY (TIMES NORMAL)	1.0E-01	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
2000.									
TOTAL	2.89E-01	1.09E-02	4.78E-04	2.09E-05	6.35E-07	2.14E-08	1.31E-09	1.08E-10	1.08E-10
CONT.	2.89E-02	2.02E-03	4.12E-05	1.52E-06	1.28E-07	1.11E-08	1.07E-09	1.01E-10	1.01E-10
1	2.89E-01	1.09E-02	4.78E-04	2.09E-05	6.35E-07	2.14E-08	1.31E-09	1.08E-10	1.08E-10
2	2.89E-01	1.09E-02	4.78E-04	2.09E-05	6.35E-07	2.14E-08	1.31E-09	1.08E-10	1.08E-10
3	2.89E-01	1.09E-02	4.78E-04	2.09E-05	6.35E-07	2.14E-08	1.31E-09	1.08E-10	1.08E-10
4	2.89E-01	1.09E-02	4.78E-04	2.09E-05	6.35E-07	2.14E-08	1.31E-09	1.08E-10	1.08E-10
5	2.89E-01	1.09E-02	4.78E-04	2.09E-05	6.35E-07	2.14E-08	1.31E-09	1.08E-10	1.08E-10
6	2.89E-01	1.09E-02	4.78E-04	2.09E-05	6.35E-07	2.14E-08	1.31E-09	1.08E-10	1.08E-10
3000.									
TOTAL	4.65E-01	1.94E-02	6.88E-04	3.48E-05	1.92E-06	1.32E-07	1.32E-08	1.06E-09	1.06E-09
CONT.	4.65E-01	1.94E-02	6.88E-04	3.48E-05	1.92E-06	1.32E-07	1.32E-08	1.06E-09	1.06E-09
1	4.65E-01	1.94E-02	6.88E-04	3.48E-05	1.92E-06	1.32E-07	1.32E-08	1.06E-09	1.06E-09
2	4.65E-01	1.94E-02	6.88E-04	3.48E-05	1.92E-06	1.32E-07	1.32E-08	1.06E-09	1.06E-09
3	4.65E-01	1.94E-02	6.88E-04	3.48E-05	1.92E-06	1.32E-07	1.32E-08	1.06E-09	1.06E-09
4	4.65E-01	1.94E-02	6.88E-04	3.48E-05	1.92E-06	1.32E-07	1.32E-08	1.06E-09	1.06E-09
5	4.65E-01	1.94E-02	6.88E-04	3.48E-05	1.92E-06	1.32E-07	1.32E-08	1.06E-09	1.06E-09
6	4.65E-01	1.94E-02	6.88E-04	3.48E-05	1.92E-06	1.32E-07	1.32E-08	1.06E-09	1.06E-09
4000.									
TOTAL	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.74E-09	3.74E-09
CONT.	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.74E-09	3.74E-09
1	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.74E-09	3.74E-09
2	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.74E-09	3.74E-09
3	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.74E-09	3.74E-09
4	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.74E-09	3.74E-09
5	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.74E-09	3.74E-09
6	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.74E-09	3.74E-09
5000.									
TOTAL	1.23E 00	7.81E-02	6.34E-03	5.61E-04	5.61E-05	3.83E-06	2.12E-07	4.83E-09	4.83E-09
CONT.	1.23E 00	7.81E-02	6.34E-03	5.61E-04	5.61E-05	3.83E-06	2.12E-07	4.83E-09	4.83E-09
1	1.23E 00	7.81E-02	6.34E-03	5.61E-04	5.61E-05	3.83E-06	2.12E-07	4.83E-09	4.83E-09
2	1.23E 00	7.81E-02	6.34E-03	5.61E-04	5.61E-05	3.83E-06	2.12E-07	4.83E-09	4.83E-09
3	1.23E 00	7.81E-02	6.34E-03	5.61E-04	5.61E-05	3.83E-06	2.12E-07	4.83E-09	4.83E-09
4	1.23E 00	7.81E-02	6.34E-03	5.61E-04	5.61E-05	3.83E-06	2.12E-07	4.83E-09	4.83E-09
5	1.23E 00	7.81E-02	6.34E-03	5.61E-04	5.61E-05	3.83E-06	2.12E-07	4.83E-09	4.83E-09
6	1.23E 00	7.81E-02	6.34E-03	5.61E-04	5.61E-05	3.83E-06	2.12E-07	4.83E-09	4.83E-09
10000.									
TOTAL	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.36E-06	2.90E-07	3.80E-09	3.80E-09
CONT.	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.36E-06	2.90E-07	3.80E-09	3.80E-09
1	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.36E-06	2.90E-07	3.80E-09	3.80E-09
2	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.36E-06	2.90E-07	3.80E-09	3.80E-09
3	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.36E-06	2.90E-07	3.80E-09	3.80E-09
4	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.36E-06	2.90E-07	3.80E-09	3.80E-09
5	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.36E-06	2.90E-07	3.80E-09	3.80E-09
6	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.36E-06	2.90E-07	3.80E-09	3.80E-09
12000.									
TOTAL	5.18E 00	5.25E-01	5.07E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09	2.72E-09
CONT.	5.18E 00	5.25E-01	5.07E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09	2.72E-09
1	5.18E 00	5.25E-01	5.07E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09	2.72E-09
2	5.18E 00	5.25E-01	5.07E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09	2.72E-09
3	5.18E 00	5.25E-01	5.07E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09	2.72E-09
4	5.18E 00	5.25E-01	5.07E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09	2.72E-09
5	5.18E 00	5.25E-01	5.07E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09	2.72E-09
6	5.18E 00	5.25E-01	5.07E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09	2.72E-09

TOTAL AND CUT-OFF PLANK NEAR ABSORPTION COEFFICIENTS

TEMPERATURE C (DEG. K)	C	DENSITY (TIMES NORMAL)						10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
		1.0E 01	1.0F 00	1.0E 01	1.0E 01	1.0E 01	1.0E 01					
13000.	TOTAL	3.17E 00	1.97E-01	1.57E-02	1.26E-03	6.22E-05	1.77E-06	2.32E-08	2.32E-08	2.32E-08	2.32E-08	2.32E-08
	CONT.	1.84E-01	1.57E-02	1.26E-03	6.22E-05	1.77E-06	2.32E-08	2.32E-08	2.32E-08	2.32E-08	2.32E-08	2.32E-08
	1	3.17E 00	1.97E-01	1.57E-02	1.26E-03	6.22E-05	1.77E-06	2.32E-08	2.32E-08	2.32E-08	2.32E-08	2.32E-08
	2	3.17E 00	1.97E-01	1.57E-02	1.26E-03	6.22E-05	1.77E-06	2.32E-08	2.32E-08	2.32E-08	2.32E-08	2.32E-08
	3	3.17E 00	1.97E-01	1.57E-02	1.26E-03	6.22E-05	1.77E-06	2.32E-08	2.32E-08	2.32E-08	2.32E-08	2.32E-08
	4	2.95E 00	1.97E-01	1.57E-02	1.26E-03	6.22E-05	1.77E-06	2.32E-08	2.32E-08	2.32E-08	2.32E-08	2.32E-08
14000.	TOTAL	2.19E 01	2.23E 00	2.05E-01	1.57E-02	7.20E-04	1.34E-05	1.47E-07	1.47E-07	1.47E-07	1.47E-07	1.47E-07
	CONT.	2.19E 01	2.23E 00	2.05E-01	1.57E-02	7.20E-04	1.34E-05	1.47E-07	1.47E-07	1.47E-07	1.47E-07	1.47E-07
	1	2.19E 01	2.23E 00	2.05E-01	1.57E-02	7.20E-04	1.34E-05	1.47E-07	1.47E-07	1.47E-07	1.47E-07	1.47E-07
	2	2.19E 01	2.23E 00	2.05E-01	1.57E-02	7.20E-04	1.34E-05	1.47E-07	1.47E-07	1.47E-07	1.47E-07	1.47E-07
	3	1.10E 01	2.23E 00	2.05E-01	1.57E-02	7.20E-04	1.34E-05	1.47E-07	1.47E-07	1.47E-07	1.47E-07	1.47E-07
	4	4.44E 00	1.04E 00	2.05E-01	1.57E-02	7.20E-04	1.34E-05	1.47E-07	1.47E-07	1.47E-07	1.47E-07	1.47E-07
15000.	TOTAL	7.46E 00	5.75E-01	4.67E-02	3.08E-03	9.04E-05	1.29E-06	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08
	CONT.	6.9E 00	5.69E-01	4.6E-02	3.07E-03	9.04E-05	1.29E-06	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08
	1	7.46E 00	5.75E-01	4.67E-02	3.08E-03	9.04E-05	1.29E-06	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08
	2	7.46E 00	5.75E-01	4.67E-02	3.08E-03	9.04E-05	1.29E-06	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08
	3	7.46E 00	5.75E-01	4.67E-02	3.08E-03	9.04E-05	1.29E-06	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08
	4	6.30E 00	5.75E-01	4.67E-02	3.08E-03	9.04E-05	1.29E-06	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08
16000.	TOTAL	6.27E 01	6.02E 00	5.64E-01	3.04E-02	7.37E-04	8.75E-06	9.15E-08	9.15E-08	9.15E-08	9.15E-08	9.15E-08
	CONT.	6.27E 01	6.02E 00	5.64E-01	3.04E-02	7.37E-04	8.75E-06	9.15E-08	9.15E-08	9.15E-08	9.15E-08	9.15E-08
	1	6.27E 01	6.02E 00	5.64E-01	3.04E-02	7.37E-04	8.75E-06	9.15E-08	9.15E-08	9.15E-08	9.15E-08	9.15E-08
	2	6.27E 01	6.02E 00	5.64E-01	3.04E-02	7.37E-04	8.75E-06	9.15E-08	9.15E-08	9.15E-08	9.15E-08	9.15E-08
	3	2.80E 01	6.02E 00	5.64E-01	3.04E-02	7.37E-04	8.75E-06	9.15E-08	9.15E-08	9.15E-08	9.15E-08	9.15E-08
	4	8.47E 00	2.57E 00	5.64E-01	3.04E-02	7.37E-04	8.75E-06	9.15E-08	9.15E-08	9.15E-08	9.15E-08	9.15E-08
17000.	TOTAL	1.57E 01	1.27E 00	9.37E-02	4.33E-03	7.44E-05	8.24E-07	9.17E-09	9.17E-09	9.17E-09	9.17E-09	9.17E-09
	CONT.	1.57E 01	1.27E 00	9.37E-02	4.33E-03	7.44E-05	8.24E-07	9.17E-09	9.17E-09	9.17E-09	9.17E-09	9.17E-09
	1	1.57E 01	1.27E 00	9.37E-02	4.33E-03	7.44E-05	8.24E-07	9.17E-09	9.17E-09	9.17E-09	9.17E-09	9.17E-09
	2	1.57E 01	1.27E 00	9.37E-02	4.33E-03	7.44E-05	8.24E-07	9.17E-09	9.17E-09	9.17E-09	9.17E-09	9.17E-09
	3	1.57E 01	1.27E 00	9.37E-02	4.33E-03	7.44E-05	8.24E-07	9.17E-09	9.17E-09	9.17E-09	9.17E-09	9.17E-09
	4	1.09E 01	1.27E 00	9.37E-02	4.33E-03	7.44E-05	8.24E-07	9.17E-09	9.17E-09	9.17E-09	9.17E-09	9.17E-09
18000.	TOTAL	1.31E 02	1.17E 01	6.46E-01	2.45E-02	3.84E-04	4.21E-06	6.56E-08	6.56E-08	6.56E-08	6.56E-08	6.56E-08
	CONT.	1.31E 02	1.17E 01	6.46E-01	2.45E-02	3.84E-04	4.21E-06	6.56E-08	6.56E-08	6.56E-08	6.56E-08	6.56E-08
	1	1.31E 02	1.17E 01	6.46E-01	2.45E-02	3.84E-04	4.21E-06	6.56E-08	6.56E-08	6.56E-08	6.56E-08	6.56E-08
	2	1.31E 02	1.17E 01	6.46E-01	2.45E-02	3.84E-04	4.21E-06	6.56E-08	6.56E-08	6.56E-08	6.56E-08	6.56E-08
	3	4.26E 01	1.17E 01	6.46E-01	2.45E-02	3.84E-04	4.21E-06	6.56E-08	6.56E-08	6.56E-08	6.56E-08	6.56E-08
	4	1.35E 01	4.61E 00	6.46E-01	2.45E-02	3.84E-04	4.21E-06	6.56E-08	6.56E-08	6.56E-08	6.56E-08	6.56E-08

b) Individual Contributions to the Planck Mean Absorption Coefficients for Air

The Tables labelled No. 1, No. 2, etc., list for the cited temperatures and densities the contribution to the total Planck mean absorption coefficient for heated air arising from individual absorbing systems. For example, the first table lists the contribution arising from the O_2 Schumann-Runge continuum. Corresponding system numbers and the system names for which they stand are given below.

System No.	Contributor
1	O_2 Schumann-Runge Continuum
2	NO_2
3	O^- Photodetachment
4	Free-Free in presence of ions
5	N Photoionization
6	O Photoionization
7	O_2 Schumann-Runge Bands
8	N_2 Birge-Hopfield Bands
9	N_2 First Positive Bands
10	N_2 Second Positive Bands
11	NO Beta Bands
12	NO Gamma Bands
13	NO Vibration-Rotation Bands
14	N_2^+ First Negative Bands

Use of the appropriate individual absorption coefficient in the expressions given in the discussion of Table C.2.a) yields the Planck mean absorption coefficient for the corresponding air constituent. Since the Planck mean is applicable to optically thin gas samples only, the sum of the Planck means for all the listed contributors should be equal to the Planck mean for air.

NO. 1

TEMP (DEG. K)	1.0E 01	DENSITY (TIMES NORMAL) 1.0E 00	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07
1000.	1.40E-20	1.40E-30	1.40E-31	1.40E-32	1.40E-33	1.40E-34	1.40E-35	1.40E-36	1.40E-37
2000.	2.52E-12	2.52E-13	2.52E-14	2.52E-15	2.52E-16	2.52E-17	2.52E-18	2.52E-19	2.52E-20
3000.	7.79E-07	7.79E-08	7.79E-09	7.79E-10	7.79E-11	7.79E-12	7.79E-13	7.79E-14	7.79E-15
4000.	2.56E-04	2.56E-05	2.56E-06	2.56E-07	2.56E-08	2.56E-09	2.56E-10	2.56E-11	2.56E-12
5000.	4.53E-03	4.53E-04	4.53E-05	4.53E-06	4.53E-07	4.53E-08	4.53E-09	4.53E-10	4.53E-11
6000.	1.67E-02	1.67E-03	1.67E-04	1.67E-05	1.67E-06	1.67E-07	1.67E-08	1.67E-09	1.67E-10
7000.	2.82E-02	2.82E-03	2.82E-04	2.82E-05	2.82E-06	2.82E-07	2.82E-08	2.82E-09	2.82E-10
8000.	3.93E-02	3.93E-03	3.93E-04	3.93E-05	3.93E-06	3.93E-07	3.93E-08	3.93E-09	3.93E-10
9000.	3.09E-02	3.09E-03	3.09E-04	3.09E-05	3.09E-06	3.09E-07	3.09E-08	3.09E-09	3.09E-10
10000.	3.94E-02	3.94E-03	3.94E-04	3.94E-05	3.94E-06	3.94E-07	3.94E-08	3.94E-09	3.94E-10
11000.	0.	0.	0.	0.	0.	0.	0.	0.	0.
12000.	0.	0.	0.	0.	0.	0.	0.	0.	0.
13000.	0.	0.	0.	0.	0.	0.	0.	0.	0.
14000.	0.	0.	0.	0.	0.	0.	0.	0.	0.
15000.	0.	0.	0.	0.	0.	0.	0.	0.	0.
16000.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17000.	0.	0.	0.	0.	0.	0.	0.	0.	0.
18000.	0.	0.	0.	0.	0.	0.	0.	0.	0.

NO. 2

TEMP (DEG. K)	DENSITY (TIMES NORMAL)															
	1.0E-01	1.0E-00	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07	1.0E-08	1.0E-09	1.0E-10	1.0E-11	1.0E-12	1.0E-13	1.0E-14
1000.	9.42E-10	2.90E-11	9.42E-13	2.90E-14	9.42E-16	2.90E-17	9.42E-19	2.90E-20								
2000.	4.04E-09	1.20E-06	4.03E-08	1.27E-09	4.00E-11	1.24E-12	3.71E-14	9.79E-16								
3000.	1.11E-03	3.42E-05	9.08E-07	2.44E-08	3.77E-10	2.44E-12	9.80E-15	2.92E-17								
4000.	4.20E-03	1.81E-04	1.44E-06	9.20E-08	3.46E-11	1.13E-13	3.51E-16	1.02E-18								
5000.	9.02E-03	1.12E-04	4.32E-07	2.32E-09	7.32E-12	2.03E-14	4.19E-17	5.23E-20								
6000.	3.96E-03	2.71E-05	1.07E-07	3.30E-10	7.96E-13	1.24E-15	1.36E-18	1.35E-21								
7000.	1.60E-03	7.80E-06	2.54E-08	5.89E-11	8.47E-14	8.93E-17	8.68E-20	7.66E-23								
8000.	6.41E-04	2.53E-06	6.47E-09	9.98E-12	1.67E-14	1.82E-17	0.55E-21	4.89E-24								
9000.	0.	0.	0.	0.	0.	0.	0.	0.								
10000.	0.	0.	0.	0.	0.	0.	0.	0.								
11000.	0.	0.	0.	0.	0.	0.	0.	0.								
12000.	0.	0.	0.	0.	0.	0.	0.	0.								
13000.	0.	0.	0.	0.	0.	0.	0.	0.								
14000.	0.	0.	0.	0.	0.	0.	0.	0.								
15000.	0.	0.	0.	0.	0.	0.	0.	0.								
16000.	0.	0.	0.	0.	0.	0.	0.	0.								
17000.	0.	0.	0.	0.	0.	0.	0.	0.								
18000.	0.	0.	0.	0.	0.	0.	0.	0.								

NO. 3

TEMP (DEG. K)	DENSITY (TIMES NORMAL)									
	1.0E-01	1.0E-00	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07	
1000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3000.	1.39E-07	1.70E-08	1.77E-09	1.49E-10	0.67E-12	2.63E-13	5.25E-15	9.33E-17		
4000.	8.39E-05	8.27E-06	4.80E-07	1.40E-08	2.98E-10	5.40E-12	9.55E-14	1.84E-15		
5000.	2.39E-03	1.51E-04	4.71E-06	8.43E-08	1.56E-09	2.60E-11	4.63E-13	1.04E-14		
6000.	1.75E-02	6.20E-04	1.36E-05	2.91E-07	4.60E-09	1.06E-10	3.13E-12	9.71E-14		
7000.	3.37E-02	1.52E-03	3.03E-05	6.21E-07	1.66E-08	5.10E-10	1.30E-11	4.68E-13		
8000.	1.16E-01	2.82E-03	6.23E-05	1.76E-06	5.45E-08	1.87E-09	4.84E-11	1.10E-12		
9000.	2.00E-01	5.02E-03	1.41E-04	4.36E-06	1.34E-07	3.87E-09	9.16E-11	1.17E-12		
10000.	3.20E-01	9.14E-03	2.83E-04	8.42E-06	2.59E-07	8.45E-09	9.52E-11	4.87E-13		
11000.	5.02E-01	1.59E-02	5.01E-04	1.51E-05	4.04E-07	7.46E-09	4.94E-11	8.60E-14		
12000.	7.70E-01	2.52E-02	7.80E-04	2.23E-05	5.07E-07	5.68E-09	1.61E-11	1.94E-14		
13000.	1.12E-00	3.63E-02	1.16E-03	2.82E-05	5.06E-07	2.95E-09	4.70E-12	5.68E-15		
14000.	1.54E-00	4.91E-02	1.42E-03	3.31E-05	3.97E-07	1.23E-09	1.52E-12	1.56E-15		
15000.	1.99E-00	6.20E-02	1.70E-03	3.33E-05	2.52E-07	4.87E-10	5.36E-13	5.59E-16		
16000.	2.45E-00	7.43E-02	1.89E-03	2.94E-05	1.38E-07	1.89E-10	7.10E-13	2.25E-18		
17000.	2.89E-00	8.49E-02	1.97E-03	2.33E-05	7.05E-08	8.66E-11	9.89E-14	1.10E-16		
18000.	3.30E-00	9.31E-02	1.92E-03	1.65E-05	3.56E-08	4.63E-11	4.41E-14	6.20E-17		

NC. 4

Temp (DEG. K)	DENSITY (TIMES NORMAL)									
	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07	1.0E-08	1.0E-09	1.0E-10
1000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3000.	3.04E-13	3.00E-14	2.89E-15	2.56E-16	1.73E-17	6.06E-19	2.79E-20	8.89E-22		
4000.	4.63E-09	4.03E-10	2.75E-11	1.23E-12	4.24E-14	1.36E-15	4.22E-17	1.24E-18		
5000.	1.09E-06	6.90E-08	2.93E-09	9.97E-11	3.11E-12	9.87E-14	2.78E-15	1.37E-16		
6000.	3.11E-09	1.45E-06	5.13E-08	1.62E-09	5.31E-11	2.82E-12	2.46E-13	2.39E-14		
7000.	2.95E-04	1.17E-05	3.90E-07	1.59E-08	1.13E-09	1.07E-10	1.05E-11	1.01E-12		
8000.	1.42E-03	5.43E-05	2.42E-06	1.05E-07	3.70E-08	1.74E-09	1.63E-10	1.32E-11		
9000.	4.02E-03	2.21E-04	1.40E-05	1.54E-06	1.50E-07	1.40E-08	1.12E-09	5.72E-11		
10000.	1.42E-02	6.09E-04	8.44E-05	6.2E-06	7.75E-07	6.39E-08	3.57E-09	8.73E-11		
11000.	4.04E-02	3.35E-03	3.27E-04	3.1E-05	2.72E-06	1.77E-07	5.64E-09	7.91E-11		
12000.	1.09E-01	1.01E-02	9.81E-04	8.9E-05	6.83E-06	3.80E-07	5.74E-09	6.48E-11		
13000.	2.65E-01	2.54E-02	2.42E-03	2.05E-04	1.26E-05	3.71E-07	4.92E-09	5.19E-11		
14000.	5.71E-01	5.50E-02	5.01E-03	3.90E-04	1.84E-05	3.59E-07	4.05E-09	4.13E-11		
15000.	1.10E 00	1.05E-01	9.24E-03	6.23E-04	2.14E-05	3.15E-07	3.33E-09	3.46E-11		
16000.	1.94E 00	1.82E-01	1.51E-02	8.57E-04	2.16E-05	2.68E-07	2.79E-09	3.18E-11		
17000.	3.15E 00	2.88E-01	2.22E-02	1.84E-03	2.80E-05	2.27E-07	2.42E-09	3.43E-11		
18000.	4.80E 00	4.26E-01	3.80E-02	1.13E-03	1.70E-05	1.94E-07	2.28E-09	4.32E-11		

NO. 5

TEMP. (DEG. K)	DEFINITY (TIMES NORMAL)											
	1.0E 00	1.0E 01	1.0E 02	1.0E 03	1.0E 04	1.0E 05	1.0E 06	1.0E 07	1.0E 08	1.0E 09	1.0E 10	1.0E 11
1000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6000.	2.96E-07	8.01E-08	2.48E-08	7.12E-09	1.47E-09	2.27E-10	2.48E-11	2.48E-12				
7000.	4.09E-05	1.18E-05	2.91E-06	8.47E-07	9.20E-08	8.71E-09	8.66E-10	8.31E-11				
8000.	1.43E-03	3.90E-04	8.08E-05	1.21E-05	1.30E-06	1.28E-07	1.09E-08	8.80E-10				
9000.	2.10E-02	5.37E-03	8.87E-04	9.26E-05	9.19E-06	8.53E-07	6.73E-08	3.99E-09				
10000.	1.57E-01	3.55E-02	4.74E-03	4.66E-04	4.03E-05	3.28E-06	1.79E-07	3.92E-09				
11000.	8.32E-01	1.43E-01	1.62E-02	1.52E-03	1.31E-04	7.73E-06	2.39E-07	3.05E-09				
12000.	2.90E 00	4.13E-01	4.26E-02	3.93E-03	2.84E-04	1.16E-05	2.10E-07	2.17E-09				
13000.	8.42E-01	1.04E-01	1.02E-02	8.63E-04	3.78E-05	1.02E-06	1.53E-08	1.32E-10				
14000.	1.66E 01	1.86E 00	1.74E-01	1.32E-02	5.88E-04	1.08E-05	1.18E-07	1.15E-09				
15000.	3.23E 00	3.39E-01	2.99E-02	1.98E-03	5.09E-05	7.00E-07	7.38E-09	7.91E-11				
16000.	5.06E 01	5.04E 00	4.63E-01	2.55E-02	5.92E-04	6.92E-06	7.36E-08	9.89E-10				
17000.	7.80E 00	7.44E-01	5.67E-02	2.57E-03	3.92E-05	4.28E-07	5.03E-09	1.08E-10				
18000.	1.04E 02	9.68E 00	4.93E-01	1.81E-02	2.75E-04	3.05E-06	5.34E-08	2.00E-09				

NO. 6

TEMP (DEG. F)	DENSITY (TIMES NORMAL)									
	1.0E 01	1.0E 00	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07	1.0E-08
1000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
4000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
5000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
6000.	5.41E-04	7.86E-07	6.24E-08	6.42E-09	6.45E-10	6.43E-11	6.42E-12	6.38E-13		
7000.	1.79E-04	2.22E-05	2.35E-06	1.80E-07	1.80E-08	1.80E-09	1.76E-10	1.69E-11		
8000.	2.19E-03	2.94E-04	2.44E-05	2.05E-06	2.07E-07	2.03E-08	1.92E-09	1.60E-10		
9000.	1.45E-02	1.44E-03	1.67E-04	1.66E-05	1.63E-06	1.25E-07	1.05E-08	5.85E-10		
10000.	6.42E-02	7.83E-03	7.17E-04	7.02E-05	6.07E-06	4.82E-07	3.01E-08	8.20E-10		
11000.	2.11E-01	2.27E-02	2.24E-03	2.32E-04	1.98E-05	1.42E-06	4.51E-08	6.70E-10		
12000.	5.61E-01	5.91E-02	5.07E-03	5.84E-04	4.82E-05	2.35E-06	4.27E-08	4.86E-10		
13000.	1.78E-01	1.85E-02	1.80E-03	1.62E-04	1.11E-05	3.69E-07	5.01E-09	5.18E-11		
14000.	2.51E-01	2.56E-03	2.44E-04	2.05E-05	1.13E-06	2.45E-08	2.55E-08	2.68E-10		
15000.	6.35E-01	6.31E-02	5.83E-03	4.40E-04	1.78E-05	2.73E-07	2.84E-09	2.86E-11		
16000.	7.38E-01	7.26E-03	6.42E-04	4.26E-05	1.23E-06	1.57E-08	1.58E-08	1.59E-10		
17000.	1.58E-01	1.53E-03	1.28E-04	6.97E-06	1.52E-05	1.69E-07	1.71E-09	1.98E-11		
18000.	1.62E-01	1.53E-03	1.19E-04	5.26E-05	9.04E-05	9.68E-07	9.95E-09	1.61E-10		

NO. 7

TEMP (DEG. K)	DENSITY (TIMES NORMAL)									
	1.0E-01	1.0E-00	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07	1.0E-08
1000.	1.43E-23	1.43E-24	1.43E-25	1.43E-26	1.43E-27	1.43E-28	1.43E-29	1.43E-30	1.43E-31	1.43E-32
2000.	2.37E-09	2.37E-10	2.37E-11	2.37E-12	2.37E-13	2.37E-14	2.37E-15	2.37E-16	2.37E-17	2.37E-18
3000.	5.12E-05	5.12E-06	5.12E-07	5.12E-08	5.12E-09	5.12E-10	5.12E-11	5.12E-12	5.12E-13	5.12E-14
4000.	3.75E-03	3.75E-04	3.75E-05	3.75E-06	3.75E-07	3.75E-08	3.75E-09	3.75E-10	3.75E-11	3.75E-12
5000.	2.41E-02	2.41E-03	2.41E-04	2.41E-05	2.41E-06	2.41E-07	2.41E-08	2.41E-09	2.41E-10	2.41E-11
6000.	4.20E-02	4.20E-03	4.20E-04	4.20E-05	4.20E-06	4.20E-07	4.20E-08	4.20E-09	4.20E-10	4.20E-11
7000.	4.12E-02	4.12E-03	4.12E-04	4.12E-05	4.12E-06	4.12E-07	4.12E-08	4.12E-09	4.12E-10	4.12E-11
8000.	3.21E-02	3.21E-03	3.21E-04	3.21E-05	3.21E-06	3.21E-07	3.21E-08	3.21E-09	3.21E-10	3.21E-11
9000.	2.33E-02	2.33E-03	2.33E-04	2.33E-05	2.33E-06	2.33E-07	2.33E-08	2.33E-09	2.33E-10	2.33E-11
10000.	1.60E-02	1.60E-03	1.60E-04	1.60E-05	1.60E-06	1.60E-07	1.60E-08	1.60E-09	1.60E-10	1.60E-11
11000.	1.14E-02	1.14E-03	1.14E-04	1.14E-05	1.14E-06	1.14E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11
12000.	8.24E-03	8.24E-04	8.24E-05	8.24E-06	8.24E-07	8.24E-08	8.24E-09	8.24E-10	8.24E-11	8.24E-12
13000.	3.37E-03	3.37E-04	3.37E-05	3.37E-06	3.37E-07	3.37E-08	3.37E-09	3.37E-10	3.37E-11	3.37E-12
14000.	2.44E-03	2.44E-04	2.44E-05	2.44E-06	2.44E-07	2.44E-08	2.44E-09	2.44E-10	2.44E-11	2.44E-12
15000.	1.79E-02	1.79E-03	1.79E-04	1.79E-05	1.79E-06	1.79E-07	1.79E-08	1.79E-09	1.79E-10	1.79E-11
16000.	1.33E-03	1.33E-04	1.33E-05	1.33E-06	1.33E-07	1.33E-08	1.33E-09	1.33E-10	1.33E-11	1.33E-12
17000.	9.79E-04	9.79E-05	9.79E-06	9.79E-07	9.79E-08	9.79E-09	9.79E-10	9.79E-11	9.79E-12	9.79E-13
18000.	7.33E-04	7.33E-05	7.33E-06	7.33E-07	7.33E-08	7.33E-09	7.33E-10	7.33E-11	7.33E-12	7.33E-13

NO. 8

TEMP (DEG. K)	DENSITY (TIMES NORMAL)									
	1.0E-01	1.0E-00	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07	
1500.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2000.	3.06E-24	3.06E-23	3.06E-26	3.06E-27	3.06E-28	3.06E-29	3.06E-30	3.06E-31		
3000.	3.62E-14	3.62E-15	3.62E-16	3.62E-17	3.62E-18	3.62E-19	3.62E-20	3.62E-21		
4000.	2.37E-09	2.37E-10	2.37E-11	2.37E-12	2.37E-13	2.37E-14	2.37E-15	2.37E-16		
5000.	1.62E-04	1.62E-07	1.62E-08	1.62E-09	1.62E-10	1.62E-11	1.62E-12	1.62E-13	1.62E-14	
6000.	1.01E-04	1.03E-05	9.87E-07	8.80E-08	4.36E-09	1.09E-10	1.31E-12	1.33E-14		
7000.	1.66E-03	1.66E-04	1.28E-05	6.39E-07	1.29E-08	1.48E-10	1.44E-12	1.33E-14		
8000.	1.18E-02	9.88E-04	5.33E-05	1.20E-06	1.40E-08	1.37E-10	1.20E-12	7.87E-15		
9000.	4.69E-02	3.03E-03	9.19E-05	1.21E-06	1.20E-08	1.04E-10	6.51E-13	1.64E-15		
10000.	1.17E-01	5.29E-03	9.44E-05	9.47E-07	8.89E-09	9.91E-11	1.76E-13	9.94E-17		
11000.	2.09E-01	6.17E-03	7.94E-05	7.49E-07	5.60E-09	2.28E-11	2.19E-14	4.14E-18		
12000.	2.81E-01	5.69E-03	6.12E-05	5.16E-07	2.89E-09	5.94E-12	1.82E-15	2.22E-19		
13000.	3.08E-01	4.87E-03	4.46E-05	3.44E-07	1.18E-09	9.32E-13	1.59E-16	1.70E-20		
14000.	2.88E-01	3.62E-03	3.14E-05	1.83E-07	3.81E-10	1.37E-13	1.72E-17	1.76E-21		
15000.	2.47E-01	2.71E-03	2.11E-05	9.24E-08	1.02E-10	2.11E-14	2.34E-18	2.35E-22		
16000.	2.03E-01	1.99E-03	1.34E-05	4.18E-08	2.49E-11	3.71E-15	3.89E-19	3.84E-23		
17000.	1.58E-01	1.44E-03	8.39E-06	1.71E-08	6.04E-12	7.54E-16	7.68E-20	7.09E-24		
18000.	1.22E-01	1.02E-03	4.91E-06	6.94E-09	1.59E-12	1.29E-16	1.74E-20	1.29E-24		

NO. 9

TEMP (DEG. K)	DENSITY (TIMES NORMAL)									
	1.0E-01	1.0E-00	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07	
1000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2000.	1.41E-13	1.41E-14	1.41E-15	1.41E-16	1.41E-17	1.41E-18	1.41E-19	1.41E-20		
3000.	5.48E-06	5.48E-09	5.50E-10	5.51E-11	5.55E-12	5.60E-13	5.63E-14	5.63E-15		
4000.	2.50E-05	2.52E-06	2.56E-07	2.61E-08	2.63E-09	2.69E-10	2.75E-11	2.80E-12		
5000.	8.16E-04	8.37E-05	8.54E-06	8.61E-07	7.69E-08	5.73E-09	2.44E-10	4.23E-12		
6000.	7.33E-03	7.47E-04	7.18E-05	5.97E-06	3.32E-07	7.95E-09	9.55E-11	9.66E-13		
7000.	3.13E-02	3.00E-03	2.41E-04	1.50E-05	2.43E-07	2.74E-09	2.71E-11	2.49E-13		
8000.	8.15E-02	6.83E-03	3.68E-04	8.31E-06	9.68E-08	9.46E-10	8.28E-12	5.49E-14		
9000.	1.49E-01	9.72E-03	2.94E-04	3.89E-06	3.86E-08	3.33E-10	2.09E-12	5.27E-15		
10000.	2.06E-01	6.27E-03	1.65E-04	1.75E-06	1.55E-08	1.04E-10	3.09E-13	1.74E-16		
11000.	2.25E-01	6.63E-03	8.53E-05	8.04E-07	6.01E-09	2.45E-11	2.35E-14	4.44E-18		
12000.	2.01E-01	4.06E-03	4.38E-05	3.78E-07	2.87E-09	3.97E-12	1.30E-15	1.59E-19		
13000.	1.50E-01	2.38E-03	2.29E-05	1.83E-07	6.03E-10	4.76E-13	8.09E-17	8.64E-21		
14000.	1.10E-01	1.38E-03	1.28E-05	6.98E-08	1.45E-10	5.22E-14	6.55E-18	6.72E-22		
15000.	7.35E-02	8.07E-04	6.28E-06	2.75E-08	3.03E-11	6.28E-15	8.95E-19	7.30E-23		
16000.	4.81E-02	4.77E-04	3.25E-06	1.04E-09	5.95E-12	8.89E-16	9.30E-20	9.20E-24		
17000.	3.13E-02	2.84E-04	1.65E-06	3.38E-09	1.20E-12	1.49E-16	1.52E-20	1.40E-24		
18000.	2.04E-02	1.71E-04	8.21E-07	1.89E-09	2.59E-13	2.93E-17	2.91E-21	2.13E-25		

NO. 10

TEMP (DEG. K)	DENSITY (TIMES NORMAL)									
	1.0E-01	1.0E-00	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07	
1000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
2000.	6.26E-21	6.26E-22	6.26E-23	6.26E-24	6.26E-25	6.26E-26	6.26E-27	6.26E-28		
3000.	2.52E-12	2.52E-13	2.52E-14	2.52E-15	2.52E-16	2.52E-17	2.52E-18	2.52E-19		
4000.	3.44E-06	3.47E-09	3.52E-10	3.56E-11	3.61E-12	3.66E-13	3.72E-14	3.77E-15		
5000.	8.26E-04	8.49E-07	8.64E-08	8.82E-09	9.00E-10	9.22E-11	9.48E-12	9.79E-14		
6000.	2.74E-04	2.79E-05	2.85E-06	2.92E-07	2.99E-08	3.07E-09	3.17E-10	3.28E-11		
7000.	2.92E-03	2.88E-04	2.72E-05	1.11E-06	2.27E-08	2.56E-10	2.93E-12	2.33E-14		
8000.	1.50E-02	1.25E-03	6.72E-05	1.32E-06	1.27E-08	1.23E-10	1.22E-12	9.97E-15		
9000.	4.59E-02	2.99E-03	9.04E-05	1.20E-06	1.19E-08	1.02E-10	6.43E-13	1.62E-15		
10000.	9.52E-02	4.28E-03	7.64E-05	8.88E-07	7.17E-09	4.79E-11	1.43E-13	8.05E-17		
11000.	1.44E-01	4.24E-03	3.48E-05	3.17E-07	3.87E-09	1.38E-11	1.31E-14	2.86E-18		
12000.	1.76E-01	3.44E-03	2.71E-05	3.12E-07	1.75E-09	3.35E-12	1.10E-15	1.35E-19		
13000.	1.66E-01	2.32E-03	2.43E-05	1.75E-07	4.40E-10	5.04E-13	8.58E-17	9.18E-21		
14000.	1.42E-01	1.76E-03	1.55E-05	9.00E-08	1.68E-10	6.73E-14	6.45E-18	8.66E-22		
15000.	1.12E-01	1.23E-03	9.97E-06	4.18E-08	4.62E-11	9.97E-15	1.06E-18	1.37E-22		
16000.	8.47E-02	8.39E-04	5.73E-06	1.74E-08	1.05E-11	1.57E-15	1.64E-19	1.62E-23		
17000.	6.24E-02	5.68E-04	3.31E-06	6.76E-09	2.39E-12	2.90E-16	3.04E-20	2.81E-24		
18000.	4.50E-02	3.82E-04	1.84E-06	2.49E-09	5.88E-13	6.37E-17	6.51E-21	4.82E-25		

NO. 11

TEMP (DEG. K)	1.0E-01	1.0E-00	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07
1000.	2.17E-26	2.17E-27	2.17E-28	2.17E-29	2.17E-30	2.17E-31	2.17E-32	2.17E-33	2.17E-34
2000.	5.22E-11	5.22E-12	5.22E-13	5.22E-14	5.22E-15	5.22E-16	5.22E-17	5.22E-18	5.22E-19
3000.	3.05E-04	3.05E-07	3.05E-10	3.05E-13	3.05E-16	3.05E-19	3.05E-22	3.05E-25	3.05E-28
4000.	4.30E-04	4.30E-05	4.30E-06	4.30E-07	4.30E-08	4.30E-09	4.30E-10	4.30E-11	4.30E-12
5000.	2.21E-03	2.21E-04	2.21E-05	2.21E-06	2.21E-07	2.21E-08	2.21E-09	2.21E-10	2.21E-11
6000.	1.02E-02	1.02E-03	1.02E-04	1.02E-05	1.02E-06	1.02E-07	1.02E-08	1.02E-09	1.02E-10
7000.	3.29E-02	3.29E-03	3.29E-04	3.29E-05	3.29E-06	3.29E-07	3.29E-08	3.29E-09	3.29E-10
8000.	4.37E-02	4.37E-03	4.37E-04	4.37E-05	4.37E-06	4.37E-07	4.37E-08	4.37E-09	4.37E-10
9000.	4.65E-02	4.65E-03	4.65E-04	4.65E-05	4.65E-06	4.65E-07	4.65E-08	4.65E-09	4.65E-10
10000.	4.72E-02	4.72E-03	4.72E-04	4.72E-05	4.72E-06	4.72E-07	4.72E-08	4.72E-09	4.72E-10
11000.	3.62E-02	3.62E-03	3.62E-04	3.62E-05	3.62E-06	3.62E-07	3.62E-08	3.62E-09	3.62E-10
12000.	2.79E-02	2.79E-03	2.79E-04	2.79E-05	2.79E-06	2.79E-07	2.79E-08	2.79E-09	2.79E-10
13000.	2.01E-02	2.01E-03	2.01E-04	2.01E-05	2.01E-06	2.01E-07	2.01E-08	2.01E-09	2.01E-10
14000.	1.40E-02	1.40E-03	1.40E-04	1.40E-05	1.40E-06	1.40E-07	1.40E-08	1.40E-09	1.40E-10
15000.	9.50E-03	9.50E-04	9.50E-05	9.50E-06	9.50E-07	9.50E-08	9.50E-09	9.50E-10	9.50E-11
16000.	6.44E-03	6.44E-04	6.44E-05	6.44E-06	6.44E-07	6.44E-08	6.44E-09	6.44E-10	6.44E-11
17000.	4.30E-03	4.30E-04	4.30E-05	4.30E-06	4.30E-07	4.30E-08	4.30E-09	4.30E-10	4.30E-11
18000.	2.99E-03	2.99E-04	2.99E-05	2.99E-06	2.99E-07	2.99E-08	2.99E-09	2.99E-10	2.99E-11

NO. 12

TEMP (DEG. K)	DENSITY (TIMES NORMAL)									
	1.0E-01	1.0E-00	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07	1.0E-08
1000.	2.60E-25	2.60E-26	2.60E-27	2.60E-28	2.60E-29	2.60E-30	2.60E-31	2.60E-32	2.60E-33	2.60E-34
2000.	2.00E-10	2.00E-11	2.00E-12	2.00E-13	2.00E-14	2.00E-15	2.00E-16	2.00E-17	2.00E-18	2.00E-19
3000.	8.73E-06	8.64E-07	8.30E-08	7.35E-09	5.12E-10	3.32E-11	2.02E-12	1.01E-13	5.04E-14	2.54E-15
4000.	1.11E-03	9.70E-05	6.99E-06	2.80E-07	1.02E-08	3.20E-10	1.01E-11	2.93E-13	2.03E-15	2.03E-17
5000.	1.33E-02	8.30E-04	3.56E-05	1.21E-06	3.73E-08	1.02E-09	2.12E-11	2.79E-13	2.79E-15	2.79E-17
6000.	4.74E-02	2.21E-03	7.75E-05	2.31E-06	5.91E-08	8.59E-10	9.36E-12	9.36E-14	9.36E-16	9.36E-18
7000.	8.91E-02	3.47E-03	1.05E-04	2.30E-06	3.43E-08	3.63E-10	3.57E-12	3.20E-14	3.20E-16	3.20E-18
8000.	1.22E-01	4.14E-03	1.01E-04	1.93E-06	1.65E-08	1.60E-10	1.42E-12	1.42E-14	1.42E-16	1.42E-18
9000.	1.30E-01	3.97E-03	7.13E-05	8.22E-07	8.05E-09	7.89E-11	4.76E-13	1.33E-15	1.33E-17	1.33E-19
10000.	1.34E-01	3.12E-03	4.25E-05	4.39E-07	3.90E-09	2.78E-11	9.43E-14	6.12E-17	6.12E-19	6.12E-21
11000.	1.17E-01	2.17E-03	2.47E-05	2.34E-07	1.03E-09	8.48E-12	9.72E-15	1.99E-18	1.99E-20	1.99E-22
12000.	9.40E-02	1.41E-03	1.45E-05	1.20E-07	7.77E-10	1.79E-12	8.79E-16	5.51E-20	5.51E-22	5.51E-24
13000.	7.09E-02	8.99E-04	8.80E-06	6.59E-08	2.76E-10	2.68E-13	2.32E-17	9.32E-21	9.32E-23	9.32E-25
14000.	5.05E-02	5.75E-04	5.11E-06	3.27E-08	8.25E-11	3.46E-14	4.51E-18	4.45E-22	4.45E-24	4.45E-26
15000.	3.54E-02	3.71E-04	3.03E-06	1.91E-08	2.05E-11	4.69E-15	5.20E-19	5.30E-23	5.30E-25	5.30E-27
16000.	2.47E-02	2.42E-04	1.77E-06	8.41E-09	4.60E-12	7.28E-16	7.72E-20	7.93E-24	7.93E-26	7.93E-28
17000.	1.72E-02	1.58E-04	1.01E-06	2.49E-09	1.02E-12	1.32E-16	1.37E-20	1.44E-24	1.44E-26	1.44E-28
18000.	1.21E-02	1.04E-04	5.60E-07	9.04E-10	2.39E-13	2.77E-17	2.80E-21	2.91E-25	2.91E-27	2.91E-29

NO. 13

TEMP (DEG. K)	DENSITY (TIMES NORMAL)				DENSITY (TIMES NORMAL)			
	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07	1.0E-08
1000.	1.84E-03	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12
2000.	1.15E-03	1.15E-04	1.15E-05	1.15E-06	1.15E-07	1.15E-08	1.15E-09	1.15E-10
3000.	2.69E-03	2.69E-04	2.69E-05	2.69E-06	2.69E-07	2.69E-08	2.69E-09	2.69E-10
4000.	2.50E-03	2.54E-04	1.72E-05	7.73E-07	2.87E-08	8.54E-10	2.44E-11	6.96E-13
5000.	2.28E-04	1.44E-05	6.12E-07	2.07E-08	6.41E-10	1.70E-11	3.04E-13	4.79E-15
6000.	1.92E-04	8.98E-06	3.14E-07	9.30E-09	2.24E-10	3.40E-12	3.80E-14	3.20E-16
7000.	1.30E-04	5.05E-06	1.11E-07	3.40E-09	5.05E-11	5.30E-13	5.20E-15	4.79E-17
8000.	8.30E-05	2.00E-06	6.83E-08	1.04E-09	1.12E-11	1.09E-13	9.41E-16	8.52E-18
9000.	5.14E-05	1.48E-06	2.83E-08	3.00E-10	3.00E-12	2.64E-14	1.73E-16	4.94E-19
10000.	2.08E-05	7.17E-07	9.76E-09	9.95E-11	2.90E-13	6.30E-15	2.11E-17	1.41E-20
11000.	1.82E-05	3.36E-07	3.83E-09	3.62E-11	2.84E-13	1.31E-15	1.50E-18	3.08E-22
12000.	1.05E-05	1.57E-07	1.61E-09	2.40E-11	8.64E-14	1.99E-16	7.51E-20	9.46E-24
13000.	5.90E-06	7.54E-08	7.21E-10	5.52E-12	2.34E-14	2.39E-17	4.13E-21	4.46E-25
14000.	3.32E-06	3.79E-08	3.36E-10	2.15E-12	5.44E-15	2.20E-18	2.90E-22	3.06E-26
15000.	1.89E-06	1.90E-08	1.61E-10	8.00E-13	1.09E-15	2.59E-19	2.82E-23	2.87E-27
16000.	1.03E-06	1.07E-08	7.80E-11	2.64E-13	2.64E-16	5.23E-20	3.42E-24	3.52E-28
17000.	6.47E-07	5.94E-09	3.79E-11	9.37E-14	3.84E-17	4.86E-21	5.14E-25	5.42E-29
18000.	3.92E-07	3.37E-09	1.82E-11	2.84E-14	7.76E-18	9.00E-22	9.36E-26	9.44E-30

NO. 14

TEMP (DEG. F)	DENSITY (TIMES NORMAL)									
	1.0E-01	1.0E-00	1.0E-01	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07
1000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
2000.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
3000.	4.08E-17	1.14E-17	3.49E-18	1.16E-18	4.43E-19	2.10E-19	1.14E-19	1.14E-19	6.36E-20	
4000.	9.71E-12	2.74E-12	1.01E-12	4.01E-13	2.40E-13	1.43E-13	7.89E-14	3.76E-14		
5000.	1.34E-08	4.73E-09	2.26E-09	1.20E-09	6.19E-10	2.71E-10	6.80E-11	5.14E-12		
6000.	1.63E-06	6.00E-07	3.40E-07	1.90E-07	4.07E-08	5.07E-09	2.06E-10	6.60E-12		
7000.	9.03E-05	2.23E-05	9.37E-06	2.36E-06	1.01E-07	6.63E-09	2.10E-10	6.24E-12		
8000.	9.09E-04	2.36E-04	9.97E-05	4.80E-06	1.83E-07	5.73E-09	1.84E-10	3.77E-12		
9000.	5.41E-03	9.94E-04	1.13E-04	4.75E-06	1.51E-07	4.27E-09	9.48E-11	1.05E-12		
10000.	5.12E-02	1.94E-03	1.13E-04	3.82E-06	1.11E-07	2.58E-09	3.23E-11	1.17E-13		
11000.	2.31E-02	2.32E-03	9.53E-05	5.90E-06	7.50E-08	1.17E-09	6.99E-12	1.01E-14		
12000.	3.31E-02	2.16E-03	7.44E-05	2.07E-06	4.22E-08	3.80E-10	9.13E-13	1.86E-15		
13000.	3.71E-02	1.80E-03	5.60E-05	1.38E-06	2.03E-08	9.30E-11	1.39E-13	1.46E-16		
14000.	3.57E-02	1.43E-03	4.09E-05	8.54E-07	8.22E-09	2.11E-11	2.49E-14	2.54E-17		
15000.	3.14E-02	1.11E-03	2.90E-05	4.69E-07	2.91E-09	4.97E-12	5.34E-15	5.33E-18		
16000.	2.62E-02	8.43E-04	1.99E-05	2.64E-07	9.64E-10	1.20E-12	1.33E-15	1.77E-18		
17000.	2.13E-02	6.55E-04	1.33E-05	1.24E-07	3.21E-10	3.77E-13	3.76E-16	3.14E-19		
18000.	1.71E-02	4.74E-04	8.60E-06	5.93E-08	1.11E-10	1.21E-13	1.15E-16	7.0E-20		

c) Total and Cut-off Rosseland Mean Free Paths

The Rosseland mean free path is the reciprocal of the Rosseland mean absorption coefficient and is defined by (see also Section 3.2, Eq. 63)

$$\Lambda_R = \frac{1}{\bar{\mu}_R} = \frac{\int_0^\infty \frac{1}{\mu'(\nu)} \frac{dB_\nu}{dT} d\nu}{\int_0^\infty \frac{dB_\nu}{dT} d\nu}$$

with the notation and units the same as before. With the same substitutions the approximating sum for digital computer use becomes

$$\Lambda_R = \frac{15}{4\pi^4} \sum_j \frac{1}{\bar{\mu}_j(x_j)} x_j^4 \left(e^{x_j} - 1 \right)^{-1} \left(1 - e^{-x_j} \right)^{-2} .$$

Table C.2.c) gives values of the Rosseland mean free paths in centimeters for heated air. "Cut-off" means have been constructed in a fashion similar to those for the Planck means as described previously. A guide to this table is given below.

Integer Appearing in Table	Computational Meaning	
1	If $1/\mu_j(x_j) \geq 10^5$ cm,	do not include in sum for Rosseland mean free path
2	If $1/\mu_j(x_j) \geq 10^4$ cm,	do not include in sum for Rosseland mean free path
3	If $1/\mu_j(x_j) \geq 10^3$ cm,	do not include in sum for Rosseland mean free path
4	If $1/\mu_j(x_j) \geq 10^2$ cm,	do not include in sum for Rosseland mean free path
5	If $1/\mu_j(x_j) \geq 10^1$ cm,	do not include in sum for Rosseland mean free path
6	If $1/\mu_j(x_j) \geq 1$ cm,	do not include in sum for Rosseland mean free path

This table provides values which complement those of the Planckian table with regard to application on practical problems. Error estimates may be obtained in a fashion analogous to that given in the discussion of the Planck cut-off means.

TOTAL AND CUT-OFF POSSESSAND MEAN FREE PATHS

TEMPERATURE C (DEG. K)		DENSITY (TIMES NORMAL)									
		1.3E 01	1.0E 00	1.0E-01	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07		
1000.	TOTAL	4.67E 09	4.87E 10	4.87E 11	4.87E 12	4.87E 13	4.67E 14	4.87E 15	4.87E 16		
	CONT.	1.57E 01	4.34E 02	1.37E 04	4.33E 05	1.37E 07	4.34E 08	1.37E 10	4.34E 11		
	1	5.35E-29	9.57E-31	3.47E-31	0.	0.	0.	0.	0.		
	2	9.57E-32	2.47E-32	0.	0.	0.	0.	0.	0.		
	3	2.47E-33	0.	0.	0.	0.	0.	0.	0.		
	4	0.	0.	0.	0.	0.	0.	0.	0.		
2000.	TOTAL	2.80E 12	2.86E 12	2.86E 13	2.86E 14	2.86E 15	2.86E 16	2.86E 17	2.86E 18		
	CONT.	1.17E 02	3.70E 03	1.17E 05	3.71E 06	1.18E 08	3.80E 09	1.27E 11	4.85E 12		
	1	4.61E-10	1.66E-14	9.23E-14	0.	0.	0.	0.	0.		
	2	1.69E-19	8.23E-15	0.	0.	0.	0.	0.	0.		
	3	8.23E-16	0.	0.	0.	0.	0.	0.	0.		
	4	0.	0.	0.	0.	0.	0.	0.	0.		
3000.	TOTAL	3.70E 05	3.69E 06	3.73E 07	3.87E 08	4.77E 09	1.26E 11	3.41E 12	9.45E 13		
	CONT.	1.44E 12	1.46E 13	1.52E 14	1.72E 15	2.47E 16	5.44E 17	1.59E 19	4.96E 20		
	1	1.58E-09	2.52E-09	1.71E-08	0.	0.	0.	0.	0.		
	2	2.47E-11	2.52E-09	0.	0.	0.	0.	0.	0.		
	3	2.47E-10	0.	0.	0.	0.	0.	0.	0.		
	4	0.	0.	0.	0.	0.	0.	0.	0.		
4000.	TOTAL	5.61E 02	1.45E 04	4.41E 05	1.16E 07	2.75E 08	7.34E 09	2.12E 11	3.43E 12		
	CONT.	6.91E 06	7.93E 07	1.16E 09	2.62E 10	8.20E 11	7.00E 13	3.29E 15	2.48E 17		
	1	2.47E-03	1.20E-04	6.99E-08	0.	0.	0.	0.	0.		
	2	1.46E-08	3.21E-07	0.	0.	0.	0.	0.	0.		
	3	4.65E-08	0.	0.	0.	0.	0.	0.	0.		
	4	0.	0.	0.	0.	0.	0.	0.	0.		
5000.	TOTAL	5.87E 01	2.17E 03	6.02E 04	1.56E 06	4.53E 07	9.79E 08	1.33E 10	5.36E 11		
	CONT.	7.61E 01	4.09E 03	5.00E 05	1.10E 08	2.20E 10	2.90E 12	1.26E 13	4.68E 15		
	1	1.43E-02	1.06E-04	0.	0.	0.	0.	0.	0.		
	2	2.78E-05	0.	0.	0.	0.	0.	0.	0.		
	3	3.22E-07	0.	0.	0.	0.	0.	0.	0.		
	4	0.	0.	0.	0.	0.	0.	0.	0.		

TOTAL AND CUT-OFF POSSESSING MEAN FREE PATHS

TEMPERATURE °C (DEG. K)	TOTAL CONT.	DENSITY (TIMES NORMAL)						10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
		1.0E 01	1.0E 00	1.0E 01	1.0E 00	1.0E 01	1.0E 00					
6000.	TOTAL	2.95E 01	6.41E 02	1.65E 04	4.73E 05	1.03E 07	2.54E 08	1.07E 10	5.60E 11	1.07E 10	5.60E 11	1.07E 10
	CONT.	7.31E 01	6.98E 03	8.85E 05	4.03E 07	6.12E 08	8.77E 09	1.07E 10	5.60E 11	1.07E 10	5.60E 11	1.07E 10
	1	3.10E 02	1.05E 04	1.81E 08	1.66E 08	0.	0.	0.	0.	0.	0.	0.
	2	7.69E 05	2.88E 09	2.96E 11	0.	0.	0.	0.	0.	0.	0.	0.
	3	4.28E 10	6.66E 14	0.	0.	0.	0.	0.	0.	0.	0.	0.
	4	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
7000.	TOTAL	9.78E 00	2.32E 02	6.47E 03	1.52E 05	4.29E 06	1.27E 08	4.94E 09	8.37E 10	4.94E 09	8.37E 10	4.94E 09
	CONT.	6.63E 01	3.73E 03	1.32E 05	1.79E 06	3.45E 07	6.27E 08	9.41E 09	5.19E 11	9.41E 09	5.19E 11	9.41E 09
	1	7.18E 02	7.81E 05	4.86E 07	2.39E 07	0.	0.	0.	0.	0.	0.	0.
	2	3.99E 04	5.59E 08	4.98E 08	0.	0.	0.	0.	0.	0.	0.	0.
	3	7.23E 09	2.43E 10	0.	0.	0.	0.	0.	0.	0.	0.	0.
	4	1.38E 14	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
8000.	TOTAL	4.01E 00	1.05E 02	2.07E 03	7.69E 04	2.53E 06	5.83E 07	8.46E 08	1.23E 10	8.46E 08	1.23E 10	8.46E 08
	CONT.	2.40E 01	5.61E 02	1.36E 04	2.94E 05	5.33E 06	7.94E 07	1.01E 09	1.33E 10	1.01E 09	1.33E 10	1.01E 09
	1	1.14E 01	4.44E 04	6.34E 05	2.12E 06	0.	0.	0.	0.	0.	0.	0.
	2	6.54E 05	4.13E 07	2.98E 07	0.	0.	0.	0.	0.	0.	0.	0.
	3	5.61E 08	5.54E 08	0.	0.	0.	0.	0.	0.	0.	0.	0.
	4	1.95E 10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
9000.	TOTAL	2.10E 00	5.41E 01	1.47E 03	4.44E 04	9.07E 05	1.33E 07	1.93E 08	3.98E 09	1.93E 08	3.98E 09	1.93E 08
	CONT.	6.63E 00	1.66E 02	3.94E 03	7.42E 04	1.12E 06	1.45E 07	1.92E 08	4.01E 09	1.92E 08	4.01E 09	1.92E 08
	1	2.03E 01	1.73E 03	1.80E 04	1.29E 05	0.	0.	0.	0.	0.	0.	0.
	2	2.29E 04	3.24E 05	1.45E 06	0.	0.	0.	0.	0.	0.	0.	0.
	3	2.43E 07	2.28E 07	0.	0.	0.	0.	0.	0.	0.	0.	0.
	4	4.49E 08	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
10000.	TOTAL	1.28E 00	3.24E 01	8.35E 02	1.91E 04	2.93E 05	4.06E 06	7.64E 07	3.13E 08	7.64E 07	3.13E 08	7.64E 07
	CONT.	2.28E 00	6.94E 01	1.38E 03	2.28E 04	3.09E 05	4.14E 06	7.67E 07	3.13E 08	7.67E 07	3.13E 08	7.67E 07
	1	4.59E 01	2.04E 03	3.89E 04	1.68E 04	0.	0.	0.	0.	0.	0.	0.
	2	6.47E 04	5.13E 05	1.73E 05	0.	0.	0.	0.	0.	0.	0.	0.
	3	1.06E 05	7.18E 07	0.	0.	0.	0.	0.	0.	0.	0.	0.
	4	1.30E 07	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

TOTAL AND CUT-OFF ROSSLAND MEAN FREE PATHS

TEMPERATURE C (DEG. K)		DENSITY (TIMES NORMAL)								
		1.0F 01	1.0E 00	1.0E-01	10.0E-03	10.0E-04	10.0E-05	10.0E-06		
11000.	TOTAL	8.28E-01	2.88E 01	4.75E 02	7.89E 03	1.09E 04	1.79E 06	5.59E 07	10.0E-07	10.0E-07
	CONT.	1.52E 00	3.88E 01	5.69E 02	8.30E 03	1.10E 05	1.79E 06	5.59E 07	4.02E 09	4.02E 09
	1	5.17E-01	8.94E-04	7.28E-04	4.80E-04	0.	0.	0.	0.	0.
	2	1.11E-03	8.18E-05	6.47E-05	0.	0.	0.	0.	0.	0.
	3	1.37E-05	4.90E-06	0.	0.	0.	0.	0.	0.	0.
	4	3.03E-07	0.	0.	0.	0.	0.	0.	0.	0.
12000.	TOTAL	5.50E-01	1.09E 01	2.44E 02	3.51E 03	5.14E 04	1.16E 06	6.20E 07	5.63E 09	5.63E 09
	CONT.	8.49E-01	1.03E 01	2.61E 02	3.56E 03	5.16E 04	1.16E 06	6.20E 07	5.63E 09	5.63E 09
	1	5.19E-01	3.89E-03	1.10E-02	1.08E-03	0.	0.	0.	0.	0.
	2	1.67E-03	1.17E-03	2.01E-04	0.	0.	0.	0.	0.	0.
	3	4.38E-05	2.06E-05	0.	0.	0.	0.	0.	0.	0.
	4	1.34E-06	0.	0.	0.	0.	0.	0.	0.	0.
13000.	TOTAL	3.71E-01	7.66E 00	1.29E 02	1.79E 03	3.83E 04	1.05E 06	7.92E 07	7.70E 09	7.70E 09
	CONT.	4.95E-01	8.00E 00	1.32E 02	1.80E 03	3.86E 04	1.05E 06	7.92E 07	7.70E 09	7.70E 09
	1	3.71E-01	1.41E-02	2.67E-03	0.	0.	0.	0.	0.	0.
	2	2.70E-03	2.50E-04	0.	0.	0.	0.	0.	0.	0.
	3	2.61E-05	0.	0.	0.	0.	0.	0.	0.	0.
	4	0.	0.	0.	0.	0.	0.	0.	0.	0.
14000.	TOTAL	2.53E-01	4.82E 00	7.21E 01	1.84E 03	2.28E 04	1.16E 06	1.03E 08	4.89E 09	4.89E 09
	CONT.	3.04E-01	5.08E 00	7.27E 01	1.84E 03	2.28E 04	1.16E 06	1.03E 08	4.89E 09	4.89E 09
	1	2.53E-01	2.06E-02	1.82E-02	4.59E-03	0.	0.	0.	0.	0.
	2	3.55E-03	1.79E-03	6.36E-04	0.	0.	0.	0.	0.	0.
	3	1.63E-04	5.97E-05	0.	0.	0.	0.	0.	0.	0.
	4	6.52E-06	0.	0.	0.	0.	0.	0.	0.	0.
15000.	TOTAL	1.75E-01	3.02E 00	4.33E 01	6.87E 02	2.00E 04	1.37E 06	1.28E 08	1.12E 10	1.12E 10
	CONT.	1.95E-01	3.13E 00	4.35E 01	6.87E 02	2.00E 04	1.37E 06	1.28E 08	1.12E 10	1.12E 10
	1	1.75E-01	3.23E-02	6.59E-03	0.	0.	0.	0.	0.	0.
	2	4.47E-03	8.13E-04	0.	0.	0.	0.	0.	0.	0.
	3	8.46E-05	0.	0.	0.	0.	0.	0.	0.	0.
	4	0.	0.	0.	0.	0.	0.	0.	0.	0.

TOTAL AND CUT-OFF ROSSELAND MEAN FREE PAYMS

TEMPERATURE C (NEG. K)	C	DENSITY (TIMES NORMAL)									
		1.0E 01	1.0E 00	1.0E-01	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07		
16000.	TOTAL	1.23E-01	1.96E 00	2.81E 01	5.12E 02	2.02E 04	1.64E 06	1.50E 08	9.98E 09		
	CONT.	1.31E-01	1.98E 00	2.81E 01	5.12E 02	2.02E 04	1.64E 06	1.50E 08	9.98E 09		
	1	1.23E-01	1.96E 00	2.81E 01	5.12E 02	2.02E 04	1.64E 06	1.50E 08	9.98E 09		
	2	1.10E-02	3.21E-03	1.46E-03	0.	0.	0.	0.	0.		
	3	3.16E-04	1.35E-04	0.	0.	0.	0.	0.	0.		
	4	1.34E-05	0.	0.	0.	0.	0.	0.	0.		
17000.	TOTAL	8.72E-02	1.32E 00	1.95E 01	4.24E 02	2.10E 04	1.92E 06	1.55E 08	6.88E 09		
	CONT.	9.04E-02	1.33E 00	1.95E 01	4.25E 02	2.10E 04	1.92E 06	1.55E 08	6.88E 09		
	1	8.72E-02	1.32E 00	1.95E 01	4.24E 02	2.10E 04	1.92E 06	1.55E 08	6.88E 09		
	2	2.98E-02	1.32E-03	0.	0.	0.	0.	0.	0.		
	3	1.59E-04	0.	0.	0.	0.	0.	0.	0.		
	4	0.	0.	0.	0.	0.	0.	0.	0.		
18000.	TOTAL	6.34E-02	9.31E-01	1.45E 01	3.87E 02	2.44E 04	2.14E 06	1.34E 08	4.32E 09		
	CONT.	6.48E-02	9.35E-01	1.45E 01	3.87E 02	2.44E 04	2.14E 06	1.34E 08	4.32E 09		
	1	6.34E-02	9.31E-01	1.45E 01	3.87E 02	2.44E 04	2.14E 06	1.34E 08	4.32E 09		
	2	6.34E-02	4.07E-03	3.89E-03	0.	0.	0.	0.	0.		
	3	4.09E-04	2.74E-04	0.	0.	0.	0.	0.	0.		
	4	4.45E-05	0.	0.	0.	0.	0.	0.	0.		

d) Partial Planck Mean Absorption Coefficients for Heated Air

The quantities listed in Table C.2.d) are partial Planck mean absorption coefficients. Two coefficients are given for each photon energy with the first one listed containing contributions from both continuum and molecular band transitions and the second containing only continuum contributions. Atomic photoionization is included in the continuum.

The partial Planck mean absorption coefficient is defined by

$$\bar{\mu}_{pp}(\nu_c) = \frac{\int_0^{\nu_c} \mu'(\nu) B_\nu(T) d\nu}{\int_0^\infty B_\nu(T) d\nu} = \frac{\pi}{\sigma T^4} \int_0^{\nu_c} \mu'(\nu) B_\nu(T) d\nu$$

where ν_c is the fixed upper frequency limit of the integral expressed in cm^{-1} and $\mu'(\nu) = \mu(\nu) \left(1 - e^{-\frac{h\nu}{kT}}\right)$ includes the re-emission term. $B_\nu(T)$ is the Planck function which is given by

$$B_\nu(T) = \frac{2hc^2\nu^3}{\left(e^{\frac{h\nu}{kT}} - 1\right)}$$

when ν is expressed in cm^{-1} . Upon substitution for μ' and $B_\nu(T)$ in Eq. 1 and after the change of variable

$$x = \frac{h\nu}{kT}, \quad \frac{h\nu}{kT}$$

$$\bar{\mu}_{pp}(\nu_c) = \frac{15}{\pi^4} \int_0^{\frac{h\nu_c}{kT}} \mu(x) x^3 e^{-x} dx$$

The latter expression is adapted for digital computer programming through the approximation

$$\bar{\mu}_{pp}(\nu_c) = \frac{15}{\pi^4} \sum_j \mu_j(x_j) x_j^3 e^{-x_j} \Delta x_j$$

where j labels the finite spectral interval for which μ_j is the average absorption coefficient.

Construction of the tables of the partial Planck mean was accomplished by a computer program which used as its input

- (1) the tables of average absorption coefficients of air for temperatures from 1,000°K - 18,000°K, densities from 10^{-6} to 10 times normal atmospheric, and for 102 spectral intervals between 0.6 eV and 10.7 eV. (These are also listed herein, see Table C.1.)
- (2) values of the absorption coefficient for the vibration-rotation bands of NO for temperatures 1,000°K - 4,000°K, the same eight densities, and spectral intervals centered on 0.2, 0.3, 0.4, and 0.5 eV. These values were obtained from special runs of one of the SACHA programs.
- (3) values of the absorption coefficients of atomic oxygen and atomic nitrogen for temperatures 6,000°K - 18,000°K, densities to correspond to the desired ones for the air tables, and spectral intervals centered at every 0.25 eV from 11.0 eV through 46.5 eV. These absorption coefficients were obtained through use of the P.I.C. computer programs.

To keep the listing of these tables as brief as possible without detracting from their utility, the tabulation of energy (frequency) points has been truncated whenever the partial Planck mean has become nearly constant.

An important feature of these tables is that the spectral contribution to the Planck mean absorption coefficient may be obtained at any listed point by simple subtraction. In addition they may be used together with the tables of spectral absorption coefficients of the individual constituents of air to determine the important emitters for various temperature-density cases.

Tables corresponding to temperatures of $13,000^{\circ}\text{K}$ and $15,000^{\circ}\text{K}$ are presented although they were not carried out to completion. Since the results given in these tables may be of value to some users they have been retained even though coefficients are not available at present for photon energies greater than 10.7 eV for these two temperatures.

BLANK

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 1000°K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal									
		1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07	1.0E-08	1.0E-09	1.0E-10
1613.20	0.20	1.81E-05	1.81E-06	1.81E-07	1.81E-08	1.81E-09	1.81E-10	1.81E-11	1.81E-12	1.81E-13	1.81E-14
2419.80	0.50	1.81E-05	1.81E-06	1.81E-07	1.81E-08	1.81E-09	1.81E-10	1.81E-11	1.81E-12	1.81E-13	1.81E-14
3226.40	0.40	1.82E-05	1.82E-06	1.82E-07	1.82E-08	1.82E-09	1.82E-10	1.82E-11	1.82E-12	1.82E-13	1.82E-14
4033.00	0.50	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
4839.60	0.60	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
5646.20	0.70	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
6452.80	0.80	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
7259.40	0.90	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
8066.00	1.00	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
8872.60	1.10	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
9679.20	1.20	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
10485.80	1.30	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
11292.40	1.40	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
12099.00	1.50	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
12905.60	1.60	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
13712.20	1.70	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
14518.80	1.80	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
15325.40	1.90	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
16132.00	2.00	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
16938.60	2.10	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
17745.20	2.20	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
18551.80	2.30	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
19358.40	2.40	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14
20165.00	2.50	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13	1.84E-14

20165.00	2.20	1.84E-05	1.84E-05	1.84E-05	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12
20371.60	2.50	9.42E-10	2.98E-11	9.42E-13	2.98E-14	9.42E-16	2.98E-17	9.42E-19	2.98E-20	9.42E-22
21775.20	2.70	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12	1.84E-13
		9.42E-10	2.98E-11	9.42E-13	2.98E-14	9.42E-16	2.98E-17	9.42E-19	2.98E-20	9.42E-22

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 2000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal									
		1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07	1.0E-08	1.0E-09	1.0E-10
1613.20	0.20	1.05E-03	1.05E-04	1.05E-05	1.05E-06	1.05E-07	1.05E-08	1.05E-09	1.05E-10	1.05E-11	1.05E-12
2415.80	0.30	1.05E-03	1.05E-04	1.05E-05	1.05E-06	1.05E-07	1.05E-08	1.05E-09	1.05E-10	1.05E-11	1.05E-12
3226.40	0.40	1.10E-03	1.10E-04	1.10E-05	1.10E-06	1.10E-07	1.10E-08	1.10E-09	1.10E-10	1.10E-11	1.10E-12
4033.00	0.50	1.15E-03	1.15E-04	1.15E-05	1.15E-06	1.15E-07	1.15E-08	1.15E-09	1.15E-10	1.15E-11	1.15E-12
4839.60	0.60	1.15E-03	1.15E-04	1.15E-05	1.15E-06	1.15E-07	1.15E-08	1.15E-09	1.15E-10	1.15E-11	1.15E-12
5646.20	0.70	1.15E-03	1.15E-04	1.15E-05	1.15E-06	1.15E-07	1.15E-08	1.15E-09	1.15E-10	1.15E-11	1.15E-12
6452.50	0.80	1.15E-03	1.15E-04	1.15E-05	1.15E-06	1.15E-07	1.15E-08	1.15E-09	1.15E-10	1.15E-11	1.15E-12
7255.40	0.90	1.15E-03	1.15E-04	1.15E-05	1.15E-06	1.15E-07	1.15E-08	1.15E-09	1.15E-10	1.15E-11	1.15E-12
8066.00	1.00	1.15E-03	1.15E-04	1.15E-05	1.15E-06	1.15E-07	1.15E-08	1.15E-09	1.15E-10	1.15E-11	1.15E-12
8872.60	1.10	1.15E-03	1.15E-04	1.15E-05	1.15E-06	1.15E-07	1.15E-08	1.15E-09	1.15E-10	1.15E-11	1.15E-12
9673.20	1.20	1.15E-03	1.15E-04	1.15E-05	1.15E-06	1.15E-07	1.15E-08	1.15E-09	1.15E-10	1.15E-11	1.15E-12
10485.80	1.30	1.15E-03	1.15E-04	1.15E-05	1.15E-06	1.15E-07	1.15E-08	1.15E-09	1.15E-10	1.15E-11	1.15E-12
11292.40	1.40	1.15E-03	1.15E-04	1.15E-05	1.15E-06	1.15E-07	1.15E-08	1.15E-09	1.15E-10	1.15E-11	1.15E-12
12094.00	1.50	1.15E-03	1.15E-04	1.15E-05	1.15E-06	1.15E-07	1.15E-08	1.15E-09	1.15E-10	1.15E-11	1.15E-12
12905.60	1.60	1.15E-03	1.15E-04	1.15E-05	1.15E-06	1.15E-07	1.15E-08	1.15E-09	1.15E-10	1.15E-11	1.15E-12
13712.20	1.70	1.15E-03	1.15E-04	1.15E-05	1.15E-06	1.15E-07	1.15E-08	1.15E-09	1.15E-10	1.15E-11	1.15E-12
14518.80	1.80	1.15E-03	1.15E-04	1.15E-05	1.15E-06	1.15E-07	1.15E-08	1.15E-09	1.15E-10	1.15E-11	1.15E-12

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 2000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal									
		1.0E-31	1.0E-30	1.0E-29	1.0E-28	1.0E-27	1.0E-26	1.0E-25	1.0E-24	1.0E-23	1.0E-22
15225.40	1.90	1.18E-03	1.16E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11	1.14E-12
2.25E-05	7.10E-07	2.24E-08	2.24E-09	2.23E-10	2.23E-11	2.23E-12	2.23E-13	2.23E-14	2.23E-15	2.23E-16	2.23E-17
16132.00	2.90	1.18E-03	1.16E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11	1.14E-12
2.68E-05	8.48E-07	2.68E-08	2.68E-09	2.68E-10	2.68E-11	2.68E-12	2.68E-13	2.68E-14	2.68E-15	2.68E-16	2.68E-17
16938.60	2.10	1.19E-03	1.16E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11	1.14E-12
3.06E-05	9.66E-07	3.06E-08	3.06E-09	3.06E-10	3.06E-11	3.06E-12	3.06E-13	3.06E-14	3.06E-15	3.06E-16	3.06E-17
17745.20	2.20	1.19E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11	1.14E-12
3.35E-05	1.06E-06	3.35E-08	3.35E-09	3.35E-10	3.35E-11	3.35E-12	3.35E-13	3.35E-14	3.35E-15	3.35E-16	3.35E-17
18551.80	2.30	1.19E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11	1.14E-12
3.56E-05	1.12E-06	3.56E-08	3.56E-09	3.56E-10	3.56E-11	3.56E-12	3.56E-13	3.56E-14	3.56E-15	3.56E-16	3.56E-17
19358.40	2.40	1.19E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11	1.14E-12
3.72E-05	1.17E-06	3.72E-08	3.72E-09	3.72E-10	3.72E-11	3.72E-12	3.72E-13	3.72E-14	3.72E-15	3.72E-16	3.72E-17
20165.00	2.50	1.19E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11	1.14E-12
3.83E-05	1.21E-06	3.83E-08	3.83E-09	3.83E-10	3.83E-11	3.83E-12	3.83E-13	3.83E-14	3.83E-15	3.83E-16	3.83E-17
20971.60	2.60	1.19E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11	1.14E-12
3.90E-05	1.23E-06	3.90E-08	3.90E-09	3.90E-10	3.90E-11	3.90E-12	3.90E-13	3.90E-14	3.90E-15	3.90E-16	3.90E-17
21778.20	2.70	1.19E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11	1.14E-12
3.95E-05	1.23E-06	3.95E-08	3.95E-09	3.95E-10	3.95E-11	3.95E-12	3.95E-13	3.95E-14	3.95E-15	3.95E-16	3.95E-17
22584.80	2.80	1.19E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11	1.14E-12
3.98E-05	1.24E-06	3.98E-08	3.98E-09	3.98E-10	3.98E-11	3.98E-12	3.98E-13	3.98E-14	3.98E-15	3.98E-16	3.98E-17
23391.40	2.90	1.19E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11	1.14E-12
4.00E-05	1.26E-06	4.00E-08	4.00E-09	4.00E-10	4.00E-11	4.00E-12	4.00E-13	4.00E-14	4.00E-15	4.00E-16	4.00E-17
24195.00	3.00	1.20E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11	1.14E-12
4.02E-05	1.27E-06	4.02E-08	4.02E-09	4.02E-10	4.02E-11	4.02E-12	4.02E-13	4.02E-14	4.02E-15	4.02E-16	4.02E-17
25004.60	3.10	1.20E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11	1.14E-12
4.03E-05	1.27E-06	4.03E-08	4.03E-09	4.03E-10	4.03E-11	4.03E-12	4.03E-13	4.03E-14	4.03E-15	4.03E-16	4.03E-17
25811.20	3.20	1.20E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11	1.14E-12
4.03E-05	1.27E-06	4.03E-08	4.03E-09	4.03E-10	4.03E-11	4.03E-12	4.03E-13	4.03E-14	4.03E-15	4.03E-16	4.03E-17
26617.80	3.30	1.20E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11	1.14E-12
4.03E-05	1.27E-06	4.03E-08	4.03E-09	4.03E-10	4.03E-11	4.03E-12	4.03E-13	4.03E-14	4.03E-15	4.03E-16	4.03E-17
27424.40	3.40	1.20E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11	1.14E-12
4.04E-05	1.27E-06	4.04E-08	4.04E-09	4.04E-10	4.04E-11	4.04E-12	4.04E-13	4.04E-14	4.04E-15	4.04E-16	4.04E-17
28231.00	3.50	1.20E-03	1.17E-04	1.16E-05	1.15E-06	1.15E-07	1.14E-08	1.14E-09	1.14E-10	1.14E-11	1.14E-12
4.04E-05	1.28E-06	4.04E-08	4.04E-09	4.04E-10	4.04E-11	4.04E-12	4.04E-13	4.04E-14	4.04E-15	4.04E-16	4.04E-17

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 3000° K

Wave Number (cm ⁻¹)	Photoz Energy (eV)	Density x K ^{0.5}									
		1.0E-01	1.0E-00	1.0E-01	1.0E-00	1.0E-01	1.0E-00	1.0E-01	1.0E-00	1.0E-01	1.0E-00
1613.80	0.770	2.19E-03	2.16E-04	2.08E-05	2.04E-06	1.84E-06	1.28E-07	3.60E-09	1.98E-10	6.36E-12	0.
2419.80	0.510	2.29E-03	2.16E-04	2.09E-05	1.89E-06	1.89E-06	1.57E-07	3.04E-09	2.08E-10	6.48E-12	0.
3226.40	0.400	2.46E-03	2.43E-04	2.34E-05	2.08E-06	1.44E-07	0.	0.	2.23E-10	7.75E-12	0.
4033.00	0.300	2.62E-03	2.59E-04	2.48E-05	2.20E-06	1.53E-07	0.	0.	2.38E-10	7.62E-12	0.
4839.60	0.260	2.69E-03	2.61E-04	2.51E-05	2.22E-06	1.55E-07	0.	0.	2.49E-10	7.69E-12	0.
5646.20	0.210	2.80E-03	2.65E-04	2.50E-05	2.24E-06	1.57E-07	0.	0.	2.58E-10	7.77E-12	0.
6452.80	0.180	2.87E-03	2.64E-04	2.54E-05	2.24E-06	1.56E-07	0.	0.	2.62E-10	7.82E-12	0.
7259.40	0.160	2.90E-03	2.65E-04	2.55E-05	2.25E-06	1.57E-07	0.	0.	2.65E-10	7.85E-12	0.
8066.00	0.140	2.92E-03	2.66E-04	2.56E-05	2.26E-06	1.58E-07	0.	0.	2.68E-10	7.88E-12	0.
8872.60	0.120	2.94E-03	2.67E-04	2.57E-05	2.27E-06	1.59E-07	0.	0.	2.71E-10	7.91E-12	0.
9678.20	0.110	2.96E-03	2.68E-04	2.58E-05	2.28E-06	1.60E-07	0.	0.	2.74E-10	7.94E-12	0.
10485.80	0.100	2.98E-03	2.69E-04	2.59E-05	2.29E-06	1.61E-07	0.	0.	2.77E-10	7.97E-12	0.
11292.40	0.090	2.99E-03	2.70E-04	2.60E-05	2.30E-06	1.62E-07	0.	0.	2.80E-10	8.00E-12	0.
12099.00	0.080	3.00E-03	2.71E-04	2.61E-05	2.31E-06	1.63E-07	0.	0.	2.83E-10	8.03E-12	0.
12905.60	0.070	3.01E-03	2.72E-04	2.62E-05	2.32E-06	1.64E-07	0.	0.	2.86E-10	8.06E-12	0.
13712.20	0.060	3.02E-03	2.73E-04	2.63E-05	2.33E-06	1.65E-07	0.	0.	2.89E-10	8.09E-12	0.
14518.80	0.050	3.03E-03	2.74E-04	2.64E-05	2.34E-06	1.66E-07	0.	0.	2.92E-10	8.12E-12	0.
15325.40	0.040	3.04E-03	2.75E-04	2.65E-05	2.35E-06	1.67E-07	0.	0.	2.95E-10	8.15E-12	0.
16132.00	0.030	3.05E-03	2.76E-04	2.66E-05	2.36E-06	1.68E-07	0.	0.	2.98E-10	8.18E-12	0.
16938.60	0.020	3.06E-03	2.77E-04	2.67E-05	2.37E-06	1.69E-07	0.	0.	3.01E-10	8.21E-12	0.
17745.20	0.010	3.07E-03	2.78E-04	2.68E-05	2.38E-06	1.70E-07	0.	0.	3.04E-10	8.24E-12	0.
18551.80	0.005	3.08E-03	2.79E-04	2.69E-05	2.39E-06	1.71E-07	0.	0.	3.07E-10	8.27E-12	0.

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR, 3000° K.

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal					10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
		1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05					
56462.00	7.00	3.54E-03	3.04E-04	2.71E-05	2.33E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	7.86E-12	7.86E-12
57280.80	7.10	3.66E-03	3.27E-04	2.95E-05	2.40E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	1.25E-11	1.25E-11
58070.20	7.20	3.78E-03	3.42E-04	3.10E-05	2.49E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	1.38E-11	1.38E-11
58851.20	7.30	3.91E-03	3.58E-04	3.26E-05	2.59E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	1.52E-11	1.52E-11
59688.40	7.40	4.04E-03	3.75E-04	3.43E-05	2.70E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	1.66E-11	1.66E-11
60425.00	7.50	4.17E-03	3.92E-04	3.60E-05	2.81E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	1.80E-11	1.80E-11
61201.60	7.60	4.30E-03	4.10E-04	3.78E-05	2.93E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	1.95E-11	1.95E-11
62025.20	7.70	4.43E-03	4.29E-04	3.97E-05	3.06E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	2.10E-11	2.10E-11
62814.80	7.80	4.56E-03	4.49E-04	4.17E-05	3.20E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	2.25E-11	2.25E-11
63721.40	7.90	4.69E-03	4.70E-04	4.38E-05	3.35E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	2.40E-11	2.40E-11
64558.60	8.00	4.82E-03	4.92E-04	4.60E-05	3.51E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	2.55E-11	2.55E-11
65334.60	8.10	4.95E-03	5.15E-04	4.83E-05	3.68E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	2.70E-11	2.70E-11
66174.20	8.20	5.08E-03	5.39E-04	5.07E-05	3.86E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	2.85E-11	2.85E-11
67054.40	8.30	5.21E-03	5.64E-04	5.32E-05	4.05E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	3.00E-11	3.00E-11
67754.40	8.40	5.34E-03	5.90E-04	5.58E-05	4.25E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	3.15E-11	3.15E-11
68610.00	8.50	5.47E-03	6.17E-04	5.85E-05	4.46E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	3.30E-11	3.30E-11
69534.00	8.60	5.60E-03	6.45E-04	6.13E-05	4.68E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	3.45E-11	3.45E-11
70534.00	8.70	5.73E-03	6.74E-04	6.42E-05	4.91E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	3.60E-11	3.60E-11
71534.00	8.80	5.86E-03	7.04E-04	6.72E-05	5.15E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	3.75E-11	3.75E-11
72534.00	8.90	5.99E-03	7.35E-04	7.02E-05	5.40E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	3.90E-11	3.90E-11
73534.00	9.00	6.12E-03	7.67E-04	7.32E-05	5.66E-06	2.00E-07	1.60E-07	1.30E-07	1.00E-07	4.05E-11	4.05E-11

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 4000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density x Normal						
		1.0E-01	1.0E-00	1.0E-01	1.0E-03	1.0E-04	1.0E-05	1.0E-06
1613.20	0.77	2.09E-03	1.83E-04	1.24E-03	3.57E-07	1.02E-08	6.15E-10	1.90E-11
	0.	0.	0.	0.	0.	0.	0.	0.
2419.80	0.30	2.12E-03	1.85E-04	1.24E-03	3.45E-07	1.93E-08	6.74E-10	1.92E-11
	0.	0.	0.	0.	0.	0.	0.	0.
3226.40	0.40	2.55E-03	2.23E-04	1.52E-03	6.00E-07	2.35E-08	7.91E-10	2.32E-11
	0.	0.	0.	0.	0.	0.	0.	0.
4033.00	0.50	2.73E-03	2.39E-04	1.62E-03	7.27E-07	2.51E-08	8.03E-10	2.40E-11
	0.	0.	0.	0.	0.	0.	0.	0.
4839.60	0.60	2.61E-03	2.45E-04	1.67E-03	7.48E-07	2.58E-08	8.20E-10	2.50E-11
	1.17E-09	1.07E-10	6.99E-12	3.12E-13	1.08E-14	3.49E-16	1.07E-17	3.19E-19
5646.20	0.70	2.63E-03	2.49E-04	1.68E-03	7.60E-07	2.62E-08	8.40E-10	2.61E-11
	1.80E-09	1.80E-10	1.23E-11	9.45E-13	1.86E-14	6.03E-16	1.87E-17	5.99E-19
6452.80	0.80	2.89E-03	2.52E-04	1.72E-03	7.70E-07	2.66E-08	8.53E-10	2.69E-11
	2.70E-09	2.77E-10	1.61E-11	7.19E-13	2.48E-14	7.95E-16	2.48E-17	7.23E-19
7259.40	0.90	2.91E-03	2.54E-04	1.73E-03	7.74E-07	2.68E-08	8.70E-10	2.80E-11
	1.10E-09	2.68E-07	3.81E-09	2.51E-11	1.20E-13	1.23E-15	3.08E-17	8.56E-19
8066.00	1.00	2.94E-03	2.55E-04	1.73E-03	7.77E-07	2.71E-08	8.91E-10	3.00E-11
	3.38E-09	8.14E-07	1.19E-08	7.51E-11	3.11E-13	3.52E-15	3.52E-17	1.37E-19
8872.60	1.10	2.99E-03	2.56E-04	1.73E-03	7.79E-07	2.72E-08	9.08E-10	3.16E-11
	7.93E-09	1.91E-06	2.71E-08	1.75E-10	6.89E-13	3.20E-15	4.10E-17	1.04E-19
9679.20	1.20	3.07E-03	2.58E-04	1.73E-03	7.83E-07	2.75E-08	9.45E-10	3.51E-11
	1.53E-04	3.64E-06	5.33E-08	3.36E-10	1.30E-12	5.37E-15	4.94E-17	1.11E-19
10485.80	1.30	3.18E-03	2.61E-04	1.74E-03	7.85E-07	2.78E-08	9.66E-10	3.70E-11
	2.63E-04	6.32E-06	9.15E-08	5.77E-10	2.21E-12	8.29E-15	6.00E-17	1.14E-19
11292.40	1.40	3.34E-03	2.65E-04	1.75E-03	7.90E-07	2.82E-08	1.01E-09	4.00E-11
	4.17E-04	1.00E-05	1.45E-07	9.15E-10	3.47E-12	1.25E-14	7.39E-17	1.25E-19
12099.00	1.50	3.53E-03	2.70E-04	1.75E-03	7.93E-07	2.85E-08	1.03E-09	4.30E-11
	6.12E-04	1.55E-05	2.35E-07	2.03E-09	1.93E-11	2.76E-13	4.70E-15	8.05E-17
12905.60	1.60	3.77E-03	2.77E-04	1.76E-03	7.97E-07	2.87E-08	1.05E-09	4.49E-11
	8.48E-04	2.13E-05	3.62E-07	3.94E-09	4.27E-11	9.05E-13	1.39E-14	2.39E-16
13712.20	1.70	4.04E-03	2.84E-04	1.80E-03	8.01E-07	2.90E-08	1.07E-09	4.69E-11
	1.11E-03	2.84E-05	5.01E-07	6.00E-09	6.21E-11	1.37E-12	2.37E-14	4.07E-16
14518.80	1.80	4.33E-03	2.92E-04	1.81E-03	8.05E-07	2.92E-08	1.09E-09	4.90E-11
	1.40E-03	3.60E-05	6.42E-07	8.02E-09	1.13E-10	1.89E-12	3.30E-14	5.65E-16
15325.40	1.90	4.64E-03	3.00E-04	1.83E-03	8.09E-07	2.94E-08	1.11E-09	5.03E-11
	1.71E-03	4.39E-05	7.93E-07	9.98E-09	1.42E-10	2.33E-12	4.14E-14	7.10E-16
16132.00	2.00	4.94E-03	3.08E-04	1.85E-03	8.11E-07	2.94E-08	1.11E-09	5.07E-11
	2.01E-03	5.16E-05	9.33E-07	1.19E-09	1.68E-10	2.82E-12	4.92E-14	8.42E-16
16938.80	2.10	5.23E-03	3.13E-04	1.86E-03	8.13E-07	2.95E-08	1.12E-09	5.09E-11
	2.32E-03	5.90E-05	1.07E-06	1.35E-08	1.92E-10	3.22E-12	5.61E-14	9.60E-16
17745.20	2.20	5.50E-03	3.22E-04	1.87E-03	8.14E-07	2.95E-08	1.12E-09	5.09E-11
	2.57E-03	6.59E-05	1.19E-06	1.50E-08	2.12E-10	3.50E-12	6.20E-14	1.06E-16

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 4000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal							
		1.0E-01	1.0E-00	1.0E-01	10.0E-02	10.0E-04	10.0E-05	10.0E-06	16.0E-07
18551.80	2.30	3.75E-03	3.28E-04	1.88E-03	8.18E-07	2.95E-08	1.12E-09	5.10E-11	2.82E-12
2.82E-03	7.22E-05	1.30E-06	1.63E-08	1.63E-08	1.63E-08	2.30E-10	3.06E-12	6.72E-14	1.15E-15
19358.40	2.40	5.97E-03	3.34E-04	1.89E-03	8.17E-07	2.94E-08	1.12E-09	5.10E-11	2.82E-12
3.04E-03	7.79E-05	1.40E-06	1.74E-08	1.74E-08	2.45E-10	4.11E-12	7.15E-14	1.22E-15	2.22E-16
20165.00	2.50	6.17E-03	3.39E-04	1.90E-03	8.18E-07	2.94E-08	1.12E-09	5.10E-11	2.82E-12
3.24E-03	8.29E-05	1.49E-06	1.84E-08	1.84E-08	2.58E-10	4.32E-12	7.53E-14	1.29E-15	2.29E-16
20971.60	2.60	6.35E-03	3.44E-04	1.91E-03	8.19E-07	2.94E-08	1.12E-09	5.10E-11	2.82E-12
3.41E-03	8.73E-05	1.56E-06	1.93E-08	1.93E-08	2.69E-10	4.50E-12	7.84E-14	1.34E-15	2.34E-16
21778.20	2.70	6.52E-03	3.49E-04	1.92E-03	8.21E-07	2.94E-08	1.12E-09	5.10E-11	2.82E-12
3.56E-03	9.11E-05	1.63E-06	2.00E-08	2.00E-08	2.79E-10	4.65E-12	8.10E-14	1.39E-15	2.39E-16
22584.90	2.80	6.68E-03	3.55E-04	1.94E-03	8.25E-07	2.97E-08	1.12E-09	5.10E-11	2.82E-12
3.69E-03	9.43E-05	1.68E-06	2.06E-08	2.06E-08	2.86E-10	4.78E-12	8.32E-14	1.42E-15	2.42E-16
23391.40	2.90	6.83E-03	3.61E-04	1.96E-03	8.29E-07	2.98E-08	1.12E-09	5.11E-11	2.83E-12
3.80E-03	9.70E-05	1.73E-06	2.11E-08	2.11E-08	2.93E-10	4.89E-12	8.50E-14	1.45E-15	2.45E-16
24198.00	3.00	6.97E-03	3.68E-04	1.99E-03	8.35E-07	2.99E-08	1.12E-09	5.12E-11	2.84E-12
3.89E-03	9.92E-05	1.77E-06	2.15E-08	2.15E-08	2.98E-10	4.97E-12	8.65E-14	1.48E-15	2.48E-16
25004.60	3.10	7.11E-03	3.75E-04	2.01E-03	8.42E-07	3.00E-08	1.13E-09	5.13E-11	2.84E-12
3.96E-03	1.01E-04	1.80E-06	2.19E-08	2.19E-08	3.03E-10	5.04E-12	8.77E-14	1.50E-15	2.50E-16
25811.20	3.20	7.25E-03	3.82E-04	2.04E-03	8.49E-07	3.02E-08	1.13E-09	5.15E-11	2.50E-12
4.03E-03	1.03E-04	1.82E-06	2.22E-08	2.22E-08	3.05E-10	5.10E-12	8.87E-14	1.52E-15	2.52E-16
26617.80	3.30	7.39E-03	3.90E-04	2.08E-03	8.56E-07	3.03E-08	1.14E-09	5.10E-11	2.56E-12
4.08E-03	1.04E-04	1.85E-06	2.24E-08	2.24E-08	3.09E-10	5.15E-12	8.96E-14	1.53E-15	2.56E-12
27424.40	3.40	7.53E-03	3.99E-04	2.12E-03	8.68E-07	3.05E-08	1.14E-09	5.17E-11	2.57E-12
4.12E-03	1.05E-04	1.86E-06	2.26E-08	2.26E-08	3.12E-10	5.19E-12	9.02E-14	1.54E-15	2.58E-12
28231.00	3.50	7.68E-03	4.09E-04	2.17E-03	8.79E-07	3.08E-08	1.15E-09	5.19E-11	2.58E-12
4.15E-03	1.06E-04	1.88E-06	2.28E-08	2.28E-08	3.15E-10	5.24E-12	9.12E-14	1.56E-15	2.58E-12
29037.50	3.60	7.85E-03	4.20E-04	2.22E-03	8.92E-07	3.10E-08	1.15E-09	5.20E-11	2.58E-12
4.18E-03	1.07E-04	1.89E-06	2.30E-08	2.30E-08	3.18E-10	5.29E-12	9.21E-14	1.57E-15	2.59E-12
29844.20	3.70	8.01E-03	4.31E-04	2.27E-03	9.04E-07	3.13E-08	1.16E-09	5.22E-11	2.59E-12
4.20E-03	1.07E-04	1.90E-06	2.31E-08	2.31E-08	3.20E-10	5.34E-12	9.24E-14	1.59E-15	2.59E-12
30650.80	3.80	8.21E-03	4.46E-04	2.34E-03	9.21E-07	3.15E-08	1.17E-09	5.24E-11	2.59E-12
4.22E-03	1.08E-04	1.91E-06	2.33E-08	2.33E-08	3.22E-10	5.37E-12	9.34E-14	1.60E-15	2.59E-12
31457.40	3.90	8.37E-03	4.58E-04	2.40E-03	9.36E-07	3.19E-08	1.17E-09	5.26E-11	2.59E-12
4.23E-03	1.08E-04	1.92E-06	2.34E-08	2.34E-08	3.24E-10	5.40E-12	9.39E-14	1.61E-15	2.59E-12
32264.00	4.00	8.57E-03	4.73E-04	2.47E-03	9.54E-07	3.25E-08	1.18E-09	5.29E-11	2.59E-12
4.24E-03	1.08E-04	1.93E-06	2.35E-08	2.35E-08	3.25E-10	5.42E-12	9.43E-14	1.61E-15	2.59E-12
33070.60	4.10	8.79E-03	4.89E-04	2.53E-03	9.74E-07	3.27E-08	1.19E-09	5.32E-11	2.59E-12
4.25E-03	1.08E-04	1.93E-06	2.35E-08	2.35E-08	3.26E-10	5.44E-12	9.46E-14	1.62E-15	2.59E-12
33877.20	4.20	9.03E-03	5.07E-04	2.64E-03	1.00E-06	3.33E-08	1.21E-09	5.37E-11	2.59E-12
4.26E-03	1.09E-04	1.93E-06	2.36E-08	2.36E-08	3.27E-10	5.45E-12	9.49E-14	1.62E-15	2.59E-12
34683.80	4.30	9.26E-03	5.25E-04	2.73E-03	1.02E-06	3.39E-08	1.22E-09	5.40E-11	2.59E-12
4.26E-03	1.09E-04	1.94E-06	2.36E-08	2.36E-08	3.28E-10	5.47E-12	9.51E-14	1.63E-15	2.59E-12
35490.40	4.40	9.53E-03	5.46E-04	2.84E-03	1.06E-06	3.47E-08	1.25E-09	5.47E-11	2.59E-12
4.27E-03	1.09E-04	1.94E-06	2.37E-08	2.37E-08	3.28E-10	5.48E-12	9.52E-14	1.63E-15	2.59E-12

36297.00	4.50	9.74E-03	5.66E-04	2.94E-05	1.09E-06	3.54E-08	1.26E-09	5.53E-11	2.98E-12
		4.27E-03	1.09E-04	1.04E-06	2.37E-06	3.29E-10	5.40E-12	9.54E-14	1.63E-15
37103.50	4.60	1.01E-02	5.86E-04	3.06E-05	1.12E-06	3.64E-08	1.29E-09	5.62E-11	3.08E-12
		4.27E-03	1.09E-04	1.04E-06	2.37E-06	3.29E-10	5.40E-12	9.54E-14	1.63E-15
37916.20	4.70	1.03E-02	6.05E-04	3.15E-05	1.15E-06	3.71E-08	1.32E-09	5.88E-11	3.02E-12
		4.27E-03	1.09E-04	1.04E-06	2.37E-06	3.29E-10	5.40E-12	9.54E-14	1.63E-15
38716.80	4.80	1.05E-02	6.23E-04	3.25E-05	1.15E-06	3.82E-08	1.35E-09	5.78E-11	3.05E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.50E-12	9.58E-14	1.64E-15
39523.10	4.90	1.07E-02	6.37E-04	3.33E-05	1.21E-06	3.90E-08	1.37E-09	5.85E-11	3.07E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.50E-12	9.58E-14	1.64E-15
40330.00	5.00	1.09E-02	6.53E-04	3.42E-05	1.25E-06	4.00E-08	1.40E-09	5.94E-11	3.12E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.50E-12	9.58E-14	1.64E-15
41136.60	5.10	1.11E-02	6.69E-04	3.51E-05	1.28E-06	4.09E-08	1.43E-09	6.02E-11	3.13E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.50E-12	9.58E-14	1.64E-15
41943.20	5.20	1.12E-02	6.82E-04	3.58E-05	1.30E-06	4.16E-08	1.45E-09	6.08E-11	3.14E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15
42749.80	5.30	1.15E-02	7.04E-04	3.71E-05	1.34E-06	4.28E-08	1.49E-09	6.19E-11	3.17E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15
43556.40	5.40	1.17E-02	7.19E-04	3.78E-05	1.35E-06	4.33E-08	1.50E-09	6.23E-11	3.19E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15
44363.00	5.50	1.19E-02	7.36E-04	3.89E-05	1.40E-06	4.44E-08	1.53E-09	6.35E-11	3.21E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15
45169.60	5.60	1.21E-02	7.51E-04	3.96E-05	1.43E-06	4.50E-08	1.55E-09	6.38E-11	3.22E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15
45976.20	5.70	1.22E-02	7.59E-04	4.00E-05	1.44E-06	4.53E-08	1.56E-09	6.40E-11	3.23E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15
46782.40	5.80	1.23E-02	7.67E-04	4.03E-05	1.45E-06	4.56E-08	1.57E-09	6.43E-11	3.24E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15
47589.40	5.90	1.24E-02	7.72E-04	4.07E-05	1.46E-06	4.58E-08	1.57E-09	6.45E-11	3.24E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15
48396.00	6.00	1.24E-02	7.75E-04	4.09E-05	1.46E-06	4.59E-08	1.57E-09	6.46E-11	3.24E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15
49202.60	6.10	1.24E-02	7.80E-04	4.12E-05	1.47E-06	4.64E-08	1.59E-09	6.50E-11	3.26E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15
50009.20	6.20	1.25E-02	7.81E-04	4.13E-05	1.48E-06	4.65E-08	1.59E-09	6.51E-11	3.26E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15
50815.80	6.30	1.25E-02	7.82E-04	4.13E-05	1.48E-06	4.65E-08	1.59E-09	6.52E-11	3.26E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15
51622.40	6.40	1.25E-02	7.83E-04	4.14E-05	1.48E-06	4.67E-08	1.60E-09	6.53E-11	3.27E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15
52429.00	6.50	1.25E-02	7.83E-04	4.14E-05	1.48E-06	4.67E-08	1.60E-09	6.54E-11	3.27E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15
53235.60	6.60	1.25E-02	7.84E-04	4.14E-05	1.48E-06	4.68E-08	1.60E-09	6.54E-11	3.27E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15
54042.20	6.70	1.25E-02	7.84E-04	4.15E-05	1.49E-06	4.68E-08	1.60E-09	6.54E-11	3.27E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15
54848.80	6.80	1.25E-02	7.84E-04	4.15E-05	1.49E-06	4.68E-08	1.60E-09	6.54E-11	3.27E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15
55655.40	6.90	1.25E-02	7.84E-04	4.15E-05	1.49E-06	4.68E-08	1.60E-09	6.54E-11	3.27E-12
		4.28E-03	1.09E-04	1.05E-06	2.37E-06	3.30E-10	5.51E-12	9.58E-14	1.64E-15

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 4030° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal						
		1.0E-01	1.0E-00	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05
56482.00	7.00	1.25E-02	7.64E-04	4.13E-05	1.49E-06	4.68E-08	1.60E-09	5.55E-11
57268.80	7.10	4.28E-03	1.09E-04	1.95E-06	2.38E-08	3.30E-10	5.51E-12	9.59E-14
58075.20	7.20	1.25E-02	7.67E-04	4.16E-05	1.49E-06	4.68E-08	1.60E-09	5.55E-11
58881.80	7.30	4.32E-03	1.12E-04	2.08E-06	2.64E-08	3.61E-10	5.83E-12	9.91E-14
59688.40	7.40	1.26E-02	7.92E-04	4.18E-05	1.49E-06	4.69E-08	1.60E-09	5.55E-11
60495.00	7.50	4.38E-03	1.17E-04	2.30E-06	3.07E-08	4.13E-10	6.37E-12	1.05E-13
61301.60	7.60	1.26E-02	7.94E-04	4.19E-05	1.50E-06	4.69E-08	1.60E-09	5.55E-11
62108.20	7.70	4.41E-03	1.19E-04	2.39E-06	3.25E-08	4.34E-10	6.58E-12	1.07E-13
62914.80	7.80	1.26E-02	7.96E-04	4.20E-05	1.50E-06	4.69E-08	1.60E-09	5.55E-11
63721.40	7.90	4.43E-03	1.21E-04	2.47E-06	3.40E-08	4.52E-10	6.77E-12	1.09E-13
64528.00	8.00	1.27E-02	7.97E-04	4.21E-05	1.50E-06	4.70E-08	1.60E-09	5.55E-11
65334.60	8.10	4.45E-03	1.22E-04	2.53E-06	3.53E-08	4.67E-10	6.93E-12	1.10E-13
66141.20	8.20	1.27E-02	7.98E-04	4.21E-05	1.50E-06	4.78E-08	1.60E-09	5.55E-11
66947.80	8.30	4.47E-03	1.23E-04	2.59E-06	3.64E-08	4.80E-10	7.06E-12	1.22E-13
67754.40	8.40	1.27E-02	7.99E-04	4.22E-05	1.50E-06	4.70E-08	1.60E-09	5.55E-11
68561.00	8.50	4.48E-03	1.24E-04	2.63E-06	3.73E-08	4.91E-10	7.18E-12	1.13E-13
69367.60	8.60	1.27E-02	8.00E-04	4.22E-05	1.50E-06	4.70E-08	1.60E-09	5.55E-11
70174.20	8.70	4.49E-03	1.25E-04	2.67E-06	3.81E-08	5.03E-10	7.27E-12	1.14E-13
70980.80	8.80	1.27E-02	8.01E-04	4.22E-05	1.50E-06	4.70E-08	1.60E-09	5.55E-11
71787.40	8.90	4.50E-03	1.26E-04	2.70E-06	3.87E-08	5.07E-10	7.35E-12	1.14E-13
72594.00	9.00	1.27E-02	8.01E-04	4.23E-05	1.50E-06	4.70E-08	1.60E-09	5.55E-11
73399.60	9.10	4.51E-03	1.26E-04	2.73E-06	3.92E-08	5.13E-10	7.41E-12	1.15E-13
74206.20	9.20	1.27E-02	8.02E-04	4.23E-05	1.50E-06	4.70E-08	1.60E-09	5.55E-11
75012.80	9.30	4.51E-03	1.27E-04	2.75E-06	3.96E-08	5.15E-10	7.47E-12	1.16E-13
75819.40	9.40	1.27E-02	8.02E-04	4.23E-05	1.50E-06	4.70E-08	1.60E-09	5.55E-11
76626.00	9.50	4.52E-03	1.27E-04	2.77E-06	4.00E-08	5.23E-10	7.51E-12	1.16E-13
77432.60	9.60	1.27E-02	8.03E-04	4.23E-05	1.50E-06	4.70E-08	1.60E-09	5.55E-11
78239.20	9.70	4.52E-03	1.28E-04	2.78E-06	4.03E-08	5.26E-10	7.59E-12	1.16E-13
79045.80	9.80	1.27E-02	8.03E-04	4.23E-05	1.50E-06	4.70E-08	1.60E-09	5.55E-11
79852.40	9.90	4.53E-03	1.28E-04	2.80E-06	4.05E-08	5.29E-10	7.57E-12	1.17E-13
80659.00	10.00	1.27E-02	8.03E-04	4.23E-05	1.50E-06	4.70E-08	1.60E-09	5.55E-11
81465.60	10.10	4.53E-03	1.28E-04	2.81E-06	4.07E-08	5.31E-10	7.60E-12	1.17E-13
82272.20	10.20	1.27E-02	8.03E-04	4.24E-05	1.50E-06	4.70E-08	1.60E-09	5.55E-11
83078.80	10.30	4.53E-03	1.28E-04	2.82E-06	4.10E-08	5.33E-10	7.62E-12	1.17E-13
83885.40	10.40	1.27E-02	8.04E-04	4.24E-05	1.50E-06	4.70E-08	1.60E-09	5.55E-11
84692.00	10.50	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
85498.60	10.60	1.27E-02	8.04E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
86305.20	10.70	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
87111.80	10.80	1.27E-02	8.04E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
87918.40	10.90	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
88725.00	11.00	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
89531.60	11.10	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
90338.20	11.20	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
91144.80	11.30	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
91951.40	11.40	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
92758.00	11.50	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
93564.60	11.60	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
94371.20	11.70	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
95177.80	11.80	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
95984.40	11.90	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
96791.00	12.00	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
97597.60	12.10	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
98404.20	12.20	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
99210.80	12.30	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
100017.40	12.40	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
100824.00	12.50	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
101630.60	12.60	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
102437.20	12.70	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
103243.80	12.80	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
104050.40	12.90	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
104857.00	13.00	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
105663.60	13.10	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
106470.20	13.20	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
107276.80	13.30	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
108083.40	13.40	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
108890.00	13.50	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
109696.60	13.60	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
110503.20	13.70	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
111309.80	13.80	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
112116.40	13.90	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
112923.00	14.00	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
113729.60	14.10	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
114536.20	14.20	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
115342.80	14.30	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
116149.40	14.40	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
116956.00	14.50	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
117762.60	14.60	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
118569.20	14.70	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
119375.80	14.80	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
120182.40	14.90	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
120989.00	15.00	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
121795.60	15.10	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
122602.20	15.20	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
123408.80	15.30	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
124215.40	15.40	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
125022.00	15.50	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
125828.60	15.60	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
126635.20	15.70	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
127441.80	15.80	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
128248.40	15.90	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
129055.00	16.00	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
129861.60	16.10	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
130668.20	16.20	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
131474.80	16.30	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
132281.40	16.40	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
133088.00	16.50	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
133894.60	16.60	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
134701.20	16.70	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
135507.80	16.80	1.27E-02	8.05E-04	4.24E-05	1.51E-06	4.70E-08	1.60E-09	5.55E-11
136314.40	16.90	4.53E-03	1.29E-04	2.83E-06	4.11E-08	5.36E-10	7.64E-12	1.17E-13
137121.00	17.00	1.27E-02	8.					

73400.00	9.10	1.20E-02	8.04E-04	4.24E-05	1.51E-06	4.79E-08	1.61E-09	6.55E-11	3.27E-12
		4.54E-03	1.29E-04	2.83E-06	4.12E-08	5.37E-10	7.66E-12	1.10E-13	1.86E-15
74207.20	9.20	1.20E-02	8.04E-04	4.24E-05	1.51E-06	4.79E-08	1.61E-09	6.55E-11	3.27E-12
		4.54E-03	1.29E-04	2.83E-06	4.12E-08	5.37E-10	7.66E-12	1.10E-13	1.86E-15
75015.40	9.30	1.20E-02	8.04E-04	4.24E-05	1.51E-06	4.79E-08	1.61E-09	6.55E-11	3.27E-12
		4.54E-03	1.29E-04	2.83E-06	4.12E-08	5.37E-10	7.66E-12	1.10E-13	1.86E-15
75823.60	9.40	1.20E-02	8.04E-04	4.24E-05	1.51E-06	4.79E-08	1.61E-09	6.55E-11	3.27E-12
		4.54E-03	1.29E-04	2.83E-06	4.12E-08	5.37E-10	7.66E-12	1.10E-13	1.86E-15
76631.80	9.50	1.20E-02	8.04E-04	4.24E-05	1.51E-06	4.79E-08	1.61E-09	6.55E-11	3.27E-12
		4.54E-03	1.29E-04	2.83E-06	4.12E-08	5.37E-10	7.66E-12	1.10E-13	1.86E-15

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 5000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	1.0E J1	1.0E 00	1.0E 01	Density × Normal	10.0E 03	10.0E 04	10.0E 05	10.0E 06	10.0E 07
4839.80	0.60	3.54E-04	9.69E-06	3.13E-07	1.01E-08	3.12E-10	8.41E-12	1.01E-13	2.43E-15	
		2.45E-04	3.06E-06	1.70E-08	8.37E-11	6.51E-13	1.96E-14	5.67E-16	2.65E-17	
5646.20	0.70	7.07E-04	1.67E-05	4.76E-07	1.59E-08	7.04E-10	3.24E-11	1.12E-12	1.95E-14	
		5.53E-04	6.91E-06	3.90E-08	1.79E-10	1.61E-12	3.53E-14	1.02E-15	5.12E-17	
6452.60	0.80	1.14E-03	2.61E-05	7.87E-07	3.46E-08	1.99E-10	1.19E-10	4.73E-12	8.05E-14	
		9.18E-04	1.15E-05	6.56E-07	2.86E-10	2.32E-12	4.79E-14	1.17E-15	8.90E-17	
7259.40	0.90	1.60E-03	3.52E-05	1.16E-06	6.88E-08	4.88E-09	3.33E-11	1.58E-11	2.30E-13	
		1.33E-03	1.66E-05	9.49E-08	4.02E-10	2.97E-12	5.82E-14	1.63E-15	6.31E-17	
8066.00	1.00	2.12E-03	4.61E-05	1.71E-06	1.17E-07	9.43E-09	6.74E-10	2.43E-11	4.90E-13	
		1.78E-03	2.24E-05	1.27E-07	5.25E-10	3.58E-12	6.66E-14	1.87E-15	9.42E-17	
8872.60	1.10	2.62E-03	5.69E-05	2.25E-06	1.67E-07	1.38E-08	1.01E-09	4.26E-11	7.35E-13	
		2.25E-03	4.20E-05	1.60E-07	8.53E-10	4.17E-12	7.35E-14	2.53E-15	1.03E-16	
9679.20	1.20	3.19E-03	7.20E-05	3.20E-06	2.58E-07	2.33E-08	1.63E-09	6.90E-11	1.19E-12	
		2.74E-03	3.41E-05	1.94E-07	7.83E-10	4.73E-12	7.92E-14	2.89E-15	1.10E-16	
10485.80	1.30	3.75E-03	8.47E-05	5.91E-06	3.24E-07	2.83E-08	2.38E-09	8.62E-11	1.53E-12	
		3.32E-03	4.02E-05	2.28E-07	9.13E-10	5.29E-12	8.40E-14	2.30E-15	1.10E-16	
11292.40	1.40	4.34E-03	1.02E-04	5.12E-06	4.40E-07	3.69E-08	2.87E-09	1.23E-10	2.11E-12	
		3.71E-03	4.62E-05	2.63E-07	1.04E-09	3.74E-12	8.80E-14	2.59E-15	1.20E-16	
12099.00	1.50	4.97E-03	1.21E-04	6.10E-06	5.24E-07	4.63E-08	2.47E-09	1.59E-10	2.52E-12	
		4.26E-03	5.64E-05	4.24E-07	3.3E-09	5.29E-11	8.85E-13	1.52E-14	4.33E-16	
12905.60	1.60	5.68E-03	1.43E-04	7.89E-06	5.90E-07	5.29E-08	3.88E-09	1.93E-10	2.84E-12	
		4.88E-03	7.18E-05	7.26E-07	9.29E-09	1.51E-10	2.97E-12	4.33E-14	1.09E-15	
13712.20	1.70	6.36E-03	1.67E-04	8.30E-06	6.89E-07	6.06E-08	4.47E-09	1.90E-10	3.30E-12	
		5.49E-03	8.79E-05	1.06E-06	1.59E-08	2.61E-10	4.47E-12	7.80E-14	1.83E-15	
14519.80	1.80	7.02E-03	1.91E-04	9.43E-06	7.73E-07	6.78E-08	5.01E-09	2.15E-10	3.69E-12	
		6.09E-03	1.04E-04	1.39E-06	2.17E-08	3.71E-10	6.36E-12	1.16E-13	2.57E-15	
15325.40	1.90	7.65E-03	2.13E-04	1.03E-05	8.52E-07	7.45E-08	5.51E-09	2.34E-10	4.06E-12	
		6.64E-03	1.16E-04	1.72E-06	2.77E-08	4.79E-10	8.20E-12	1.43E-13	2.28E-15	
16132.00	2.00	8.19E-03	2.29E-04	1.10E-05	8.74E-07	7.61E-08	5.62E-09	2.39E-10	4.14E-12	
		7.17E-03	1.33E-04	2.03E-06	3.35E-08	5.82E-10	9.99E-12	1.73E-13	3.97E-15	

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 5000° K

Wave Number (cm ⁻¹)	Photo Energy (eV)	Density × Normal									
		1.0E-01	1.5E-00	1.0E-01	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07	1.0E-08	1.0E-09
16934.60	2.10	8.69E-03	2.44E-04	1.14E-09	8.33E-07	7.73E-07	5.71E-09	2.43E-10	4.21E-15		
		7.65E-03	1.47E-04	2.39E-04	1.90E-08	6.86E-13	1.17E-11	2.02E-13	4.65E-15		
17745.20	2.20	9.13E-03	2.57E-04	2.17E-09	9.03E-07	7.80E-08	5.74E-09	2.44E-10	4.23E-12		
		8.59E-03	1.56E-04	2.59E-08	4.41E-08	7.70E-11	1.32E-11	2.29E-13	5.23E-15		
18551.90	2.30	9.34E-03	2.66E-04	2.20E-09	9.10E-07	7.83E-08	5.76E-09	2.43E-10	4.26E-12		
		8.50E-03	1.70E-04	2.83E-06	4.64E-08	8.55E-10	1.46E-11	2.51E-13	5.77E-15		
19358.40	2.40	9.90E-03	2.79E-04	2.22E-09	9.14E-07	7.84E-08	5.77E-09	2.43E-10	4.28E-12		
		8.66E-03	1.80E-04	3.05E-06	5.26E-08	9.26E-10	1.59E-11	2.75E-13	6.27E-15		
20165.00	2.50	1.02E-02	2.86E-04	1.24E-09	9.18E-07	7.85E-08	5.77E-09	2.46E-10	4.30E-12		
		9.18E-03	1.90E-04	3.25E-06	5.65E-08	9.37E-10	1.70E-11	2.95E-13	6.71E-15		
20971.60	2.60	1.04E-02	2.96E-04	1.26E-09	9.22E-07	7.86E-08	5.78E-09	2.46E-10	4.34E-12		
		9.47E-03	1.96E-04	3.43E-06	5.98E-08	1.05E-09	1.80E-11	3.12E-13	7.11E-15		
21778.20	2.70	1.10E-02	3.11E-04	1.29E-09	9.26E-07	7.87E-08	5.80E-09	2.51E-10	4.67E-12		
		9.73E-03	2.05E-04	3.58E-06	6.28E-08	1.10E-09	1.89E-11	3.28E-13	7.46E-15		
22584.90	2.80	1.14E-02	3.28E-04	1.33E-09	9.35E-07	7.89E-08	5.80E-09	2.51E-10	4.73E-12		
		9.96E-03	2.11E-04	3.72E-06	6.54E-08	1.15E-09	1.97E-11	3.42E-13	7.77E-15		
23391.40	2.90	1.19E-02	3.46E-04	1.37E-09	9.45E-07	7.92E-08	5.84E-09	2.59E-10	5.33E-12		
		1.02E-02	2.17E-04	1.64E-06	6.77E-08	1.19E-09	2.04E-11	3.54E-13	8.04E-15		
24198.00	3.00	1.25E-02	3.68E-04	1.43E-09	9.59E-07	7.96E-08	5.87E-09	2.65E-10	5.78E-12		
		1.03E-02	2.25E-04	3.95E-06	6.97E-08	1.23E-09	2.10E-11	3.64E-13	8.28E-15		
25004.60	3.10	1.35E-02	3.93E-04	1.50E-09	9.75E-07	8.09E-08	5.89E-09	2.66E-10	5.83E-12		
		1.05E-02	2.26E-04	4.04E-06	7.15E-08	1.26E-09	2.16E-11	3.74E-13	8.49E-15		
25811.20	3.20	1.37E-02	4.20E-04	1.57E-09	9.92E-07	8.08E-08	6.01E-09	2.92E-10	7.83E-12		
		1.06E-02	2.30E-04	4.13E-06	7.30E-08	1.29E-09	2.20E-11	3.82E-13	8.67E-15		
26617.80	3.30	1.44E-02	4.49E-04	1.64E-09	1.01E-06	8.13E-08	6.04E-09	2.97E-10	8.11E-12		
		1.07E-02	2.33E-04	4.20E-06	7.43E-08	1.31E-09	2.24E-11	3.89E-13	8.83E-15		
27424.40	3.40	1.53E-02	4.84E-04	1.73E-09	1.03E-06	8.19E-08	6.03E-09	2.97E-10	8.16E-12		
		1.08E-02	2.36E-04	4.26E-06	7.55E-08	1.33E-09	2.28E-11	3.95E-13	8.56E-15		
28231.00	3.50	1.61E-02	5.22E-04	1.82E-09	1.05E-06	8.26E-08	6.13E-09	3.11E-10	8.16E-12		
		1.09E-02	2.40E-04	4.39E-06	7.72E-08	1.36E-09	2.33E-11	4.04E-13	9.17E-15		
29037.60	3.60	1.71E-02	5.66E-04	1.94E-09	1.08E-06	8.34E-08	6.16E-09	3.13E-10	9.27E-12		
		1.10E-02	2.43E-04	4.43E-06	7.88E-08	1.39E-09	2.38E-11	4.12E-13	9.36E-15		
29844.20	3.70	1.82E-02	6.09E-04	2.04E-09	1.10E-06	8.41E-08	6.19E-09	3.14E-10	9.31E-12		
		1.11E-02	2.46E-04	4.51E-06	8.03E-08	1.42E-09	2.43E-11	4.20E-13	9.54E-15		
30650.80	3.80	1.94E-02	6.63E-04	2.18E-09	1.14E-06	8.49E-08	6.21E-09	3.16E-10	9.45E-12		
		1.12E-02	2.49E-04	4.57E-06	8.16E-08	1.44E-09	2.47E-11	4.27E-13	9.69E-15		
31457.40	3.90	2.05E-02	7.12E-04	2.30E-09	1.17E-06	8.57E-08	6.24E-09	3.17E-10	9.46E-12		
		1.23E-02	2.51E-04	4.63E-06	8.27E-08	1.46E-09	2.50E-11	4.33E-13	9.83E-15		
32264.00	4.00	2.19E-02	7.71E-04	2.46E-09	1.20E-06	8.68E-08	6.27E-09	3.18E-10	9.47E-12		
		1.13E-02	2.53E-04	4.58E-06	8.36E-08	1.48E-09	2.53E-11	4.38E-13	9.94E-15		
33070.00	4.10	2.33E-02	8.34E-04	2.65E-09	1.24E-06	8.78E-08	6.29E-09	3.19E-10	9.44E-12		
		1.14E-02	2.55E-04	4.72E-06	8.44E-08	1.49E-09	2.56E-11	4.42E-13	1.00E-14		
33877.20	4.20	2.50E-02	9.13E-04	2.85E-09	1.30E-06	8.95E-08	6.34E-09	3.19E-10	9.49E-12		
		1.14E-02	2.56E-04	4.74E-06	8.51E-08	1.50E-09	2.58E-11	4.46E-13	1.01E-14		

34583.80	4.30	2.66E-02	9.89E-04	3.06E-05	1.36E-06	9.10E-08	6.36E-09	3.29E-10	9.31E-12
35100.40	4.40	1.15E-02	2.58E-04	4.79E-06	8.57E-08	1.51E-09	2.60E-11	4.69E-13	1.02E-14
36297.00	4.50	1.15E-02	2.59E-04	4.81E-06	8.64E-08	9.33E-09	2.64E-09	3.21E-10	9.52E-12
37103.80	4.60	1.05E-02	1.18E-03	3.63E-05	1.51E-06	1.52E-09	2.61E-11	4.53E-13	1.02E-14
37916.29	4.70	1.15E-02	2.59E-04	4.83E-06	8.68E-08	9.34E-09	2.62E-11	4.53E-13	1.02E-14
38716.80	4.80	1.15E-02	2.60E-04	4.85E-06	8.69E-08	1.53E-09	2.63E-11	4.53E-13	1.02E-14
39524.40	4.90	1.15E-02	2.61E-04	4.87E-06	8.72E-08	1.54E-09	2.64E-11	4.53E-13	1.02E-14
40230.00	5.00	1.15E-02	2.61E-04	4.88E-06	8.75E-08	1.55E-09	2.65E-11	4.53E-13	1.02E-14
41136.60	5.10	1.15E-02	2.62E-04	4.90E-06	8.79E-08	1.56E-09	2.66E-11	4.53E-13	1.02E-14
41943.20	5.20	1.15E-02	2.62E-04	4.90E-06	8.81E-08	1.56E-09	2.67E-11	4.53E-13	1.02E-14
42749.80	5.30	1.15E-02	2.63E-04	4.91E-06	8.85E-08	1.57E-09	2.68E-11	4.53E-13	1.02E-14
43556.40	5.40	1.15E-02	2.63E-04	4.92E-06	8.88E-08	1.57E-09	2.68E-11	4.53E-13	1.02E-14
44363.00	5.50	1.15E-02	2.63E-04	4.92E-06	8.91E-08	1.57E-09	2.68E-11	4.53E-13	1.02E-14
45169.60	5.60	1.15E-02	2.63E-04	4.93E-06	8.94E-08	1.57E-09	2.68E-11	4.53E-13	1.02E-14
45976.20	5.70	1.15E-02	2.63E-04	4.93E-06	8.97E-08	1.57E-09	2.68E-11	4.53E-13	1.02E-14
46782.80	5.80	1.15E-02	2.63E-04	4.93E-06	8.99E-08	1.57E-09	2.68E-11	4.53E-13	1.02E-14
47589.40	5.90	1.15E-02	2.63E-04	4.93E-06	9.02E-08	1.57E-09	2.68E-11	4.53E-13	1.02E-14
48396.00	6.00	1.15E-02	2.63E-04	4.93E-06	9.05E-08	1.57E-09	2.68E-11	4.53E-13	1.02E-14
49202.60	6.10	1.15E-02	2.63E-04	4.93E-06	9.08E-08	1.57E-09	2.68E-11	4.53E-13	1.02E-14
50009.20	6.20	1.15E-02	2.63E-04	4.93E-06	9.11E-08	1.57E-09	2.68E-11	4.53E-13	1.02E-14
50815.80	6.30	1.15E-02	2.63E-04	4.93E-06	9.14E-08	1.57E-09	2.68E-11	4.53E-13	1.02E-14
51622.40	6.40	1.15E-02	2.63E-04	4.93E-06	9.17E-08	1.57E-09	2.68E-11	4.53E-13	1.02E-14
52429.00	6.50	1.15E-02	2.63E-04	4.93E-06	9.20E-08	1.57E-09	2.68E-11	4.53E-13	1.02E-14
53235.60	6.60	1.15E-02	2.63E-04	4.93E-06	9.23E-08	1.57E-09	2.68E-11	4.53E-13	1.02E-14
54042.20	6.70	1.15E-02	2.63E-04	4.93E-06	9.26E-08	1.57E-09	2.68E-11	4.53E-13	1.02E-14
54848.80	6.80	1.15E-02	2.63E-04	4.93E-06	9.29E-08	1.57E-09	2.68E-11	4.53E-13	1.02E-14

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 500° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	1.0E-01	1.0E-00	1.0E-01	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
55655.40	6.90	9.53E-02	2.47E-03	6.03E-05	2.83E-06	1.34E-07	7.55E-09	3.44E-10	0.03E-12
56462.00	7.00	1.19E-02	2.64E-04	4.94E-06	6.87E-08	1.57E-09	2.69E-11	4.05E-13	1.06E-14
57268.60	7.10	3.33E-02	2.47E-03	8.03E-05	2.84E-06	1.34E-07	7.56E-09	3.44E-10	9.82E-12
58075.20	7.20	1.08E-02	2.64E-04	4.94E-06	6.87E-08	1.57E-09	2.69E-11	4.05E-13	1.06E-14
58881.80	7.30	5.58E-02	2.49E-03	8.07E-05	2.84E-06	1.34E-07	7.56E-09	3.44E-10	9.82E-12
59688.40	7.40	1.21E-02	2.64E-04	5.31E-06	9.31E-08	1.61E-09	2.73E-11	4.70E-13	1.06E-14
60495.00	7.50	5.53E-02	2.51E-03	8.11E-05	2.84E-06	1.35E-07	7.56E-09	3.44E-10	9.82E-12
61301.60	7.60	1.26E-02	3.04E-04	5.66E-06	9.71E-08	1.66E-09	2.78E-11	4.74E-13	1.06E-14
62108.20	7.70	1.31E-02	3.21E-04	5.97E-06	1.01E-07	1.69E-09	2.82E-11	4.78E-13	1.07E-14
62914.80	7.80	5.72E-02	2.54E-03	8.17E-05	2.85E-06	1.35E-07	7.56E-09	3.44E-10	9.82E-12
63721.40	7.90	1.35E-02	3.37E-04	6.29E-06	1.04E-07	1.73E-09	2.85E-11	4.82E-13	1.07E-14
64528.00	8.00	5.75E-02	2.56E-03	8.19E-05	2.86E-06	1.35E-07	7.56E-09	3.44E-10	9.82E-12
65334.60	8.10	1.39E-02	3.52E-04	6.51E-06	1.07E-07	1.74E-09	2.88E-11	4.85E-13	1.07E-14
66141.20	8.20	5.79E-02	2.57E-03	8.21E-05	2.86E-06	1.35E-07	7.56E-09	3.44E-10	9.82E-12
66947.80	8.30	1.42E-02	3.64E-04	6.73E-06	1.10E-07	1.79E-09	2.91E-11	4.88E-13	1.08E-14
67754.40	8.40	1.45E-02	3.78E-04	6.93E-06	1.12E-07	1.81E-09	2.93E-11	4.90E-13	1.08E-14
68561.00	8.50	5.84E-02	2.59E-03	8.23E-05	2.86E-06	1.35E-07	7.56E-09	3.44E-10	9.82E-12
69367.60	8.60	1.47E-02	3.85E-04	7.11E-06	1.14E-07	1.83E-09	2.96E-11	4.92E-13	1.08E-14
70174.20	8.70	5.86E-02	2.60E-03	8.27E-05	2.86E-06	1.35E-07	7.56E-09	3.44E-10	9.82E-12
70980.80	8.80	1.50E-02	3.94E-04	7.28E-06	1.16E-07	1.85E-09	2.98E-11	4.94E-13	1.08E-14
71787.40	8.90	5.88E-02	2.61E-03	8.28E-05	2.87E-06	1.35E-07	7.56E-09	3.44E-10	9.82E-12
72594.00	9.00	1.53E-02	4.05E-04	7.40E-06	1.17E-07	1.87E-09	2.99E-11	4.96E-13	1.09E-14
		5.90E-02	2.62E-03	8.29E-05	2.87E-06	1.35E-07	7.56E-09	3.44E-10	9.82E-12
		1.56E-02	4.19E-04	7.70E-06	1.21E-07	1.93E-09	3.03E-11	5.00E-13	1.09E-14
		5.94E-02	2.63E-03	8.32E-05	2.87E-06	1.35E-07	7.56E-09	3.44E-10	9.82E-12
		1.57E-02	4.23E-04	7.77E-06	1.23E-07	1.91E-09	3.04E-11	5.01E-13	1.09E-14
		5.95E-02	2.63E-03	8.33E-05	2.87E-06	1.35E-07	7.56E-09	3.44E-10	9.82E-12
		1.58E-02	4.26E-04	7.84E-06	1.25E-07	1.92E-09	3.05E-11	5.01E-13	1.09E-14
		5.95E-02	2.64E-03	8.33E-05	2.87E-06	1.35E-07	7.56E-09	3.44E-10	9.82E-12
		1.59E-02	4.29E-04	7.89E-06	1.25E-07	1.93E-09	3.05E-11	5.02E-13	1.09E-14
		5.96E-02	2.64E-03	8.34E-05	2.87E-06	1.35E-07	7.56E-09	3.44E-10	9.82E-12
		1.59E-02	4.32E-04	7.94E-06	1.25E-07	1.93E-09	3.06E-11	5.02E-13	1.09E-14
		5.97E-02	2.64E-03	8.34E-05	2.87E-06	1.35E-07	7.56E-09	3.44E-10	9.82E-12
		1.60E-02	4.34E-04	7.98E-06	1.24E-07	1.94E-09	3.06E-11	5.03E-13	1.09E-14
		5.97E-02	2.64E-03	8.34E-05	2.87E-06	1.35E-07	7.56E-09	3.44E-10	9.82E-12
		1.60E-02	4.36E-04	8.01E-06	1.25E-07	1.94E-09	3.07E-11	5.03E-13	1.09E-14
		5.98E-02	2.64E-03	8.35E-05	2.87E-06	1.35E-07	7.56E-09	3.44E-10	9.82E-12
		1.61E-02	4.37E-04	8.03E-06	1.25E-07	1.95E-09	3.07E-11	5.04E-13	1.09E-14

73400.60	9.10	5.98E-02	2.64E-03	8.35E-05	2.87E-06	1.35E-07	7.56E-09	3.43E-10	9.93E-12
		1.61E-02	4.38E-04	8.05E-06	1.25E-07	1.95E-09	3.07E-11	5.04E-13	1.09E-14
74297.20	9.20	5.98E-02	2.64E-03	8.35E-05	2.87E-06	1.35E-07	7.56E-09	3.43E-10	9.93E-12
		1.61E-02	4.39E-04	8.06E-06	1.25E-07	1.95E-09	3.07E-11	5.04E-13	1.09E-14
75013.40	9.30	5.98E-02	2.64E-03	8.35E-05	2.87E-06	1.35E-07	7.56E-09	3.43E-10	9.93E-12
		1.61E-02	4.39E-04	8.06E-06	1.25E-07	1.95E-09	3.07E-11	5.04E-13	1.09E-14
75820.40	9.40	5.98E-02	2.65E-03	8.35E-05	2.87E-06	1.35E-07	7.56E-09	3.43E-10	9.93E-12
		1.61E-02	4.40E-04	8.07E-06	1.25E-07	1.95E-09	3.07E-11	5.04E-13	1.09E-14
76627.00	9.50	5.98E-02	2.65E-03	8.35E-05	2.87E-06	1.35E-07	7.56E-09	3.43E-10	9.93E-12
		1.61E-02	4.40E-04	8.07E-06	1.25E-07	1.95E-09	3.08E-11	5.04E-13	1.09E-14

PARTIAL PLANK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 6000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density x Normal							
		1.0E 01	1.0E 06	1.0E 01	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
4339.60	0.60	1.64E-04	5.04E-06	1.65E-07	5.05E-09	1.37E-10	3.47E-12	1.74E-13	1.54E-14
		7.03E-05	7.04E-07	1.12E-08	3.40E-10	1.70E-11	1.52E-12	1.53E-13	1.52E-14
5646.20	0.70	3.04E-04	3.38E-06	4.28E-07	2.35E-08	1.11E-09	2.78E-11	6.00E-13	3.93E-14
		1.60E-04	1.50E-06	2.14E-08	6.38E-10	3.54E-11	3.11E-12	3.15E-13	3.14E-14
6472.80	0.80	5.55E-04	2.18E-05	1.38E-06	9.72E-08	5.14E-09	1.25E-10	1.92E-12	4.24E-14
		2.68E-04	2.09E-06	3.10E-03	9.03E-10	4.92E-11	4.72E-12	4.81E-13	4.79E-14
7259.40	0.90	2.16E-04	4.83E-05	3.82E-06	2.84E-07	1.55E-08	9.75E-10	5.12E-12	1.15E-13
		3.93E-04	3.37E-06	3.98E-08	1.16E-09	6.85E-11	6.90E-12	7.00E-13	7.07E-14
8036.00	1.00	1.41E-03	8.34E-05	7.11E-06	5.70E-07	3.15E-08	7.57E-10	9.92E-12	1.84E-13
		5.34E-04	4.44E-06	4.84E-08	1.39E-09	8.66E-11	8.99E-12	9.20E-13	9.26E-14
8872.50	1.10	1.95E-03	1.24E-04	1.03E-05	8.83E-07	4.89E-08	1.18E-09	1.51E-11	2.54E-13
		6.80E-04	5.57E-06	5.65E-08	1.59E-09	1.03E-10	1.09E-11	1.13E-12	1.12E-13
9679.20	1.20	2.75E-03	1.89E-04	1.71E-05	1.40E-06	7.77E-08	1.87E-09	2.56E-11	3.54E-13
		8.52E-04	6.74E-06	6.45E-08	1.76E-09	1.17E-10	1.25E-11	1.29E-12	1.29E-13
10485.60	1.30	3.47E-03	2.47E-04	2.25E-05	1.85E-06	1.03E-07	2.45E-09	3.08E-11	4.42E-13
		1.02E-03	7.99E-06	7.15E-08	1.91E-09	1.29E-10	1.39E-11	1.44E-12	1.44E-13
11292.40	1.40	4.53E-03	3.39E-04	3.12E-05	2.57E-06	1.43E-07	3.43E-09	4.26E-11	5.70E-13
		1.20E-03	9.25E-06	7.98E-08	2.03E-09	1.38E-10	1.50E-11	1.56E-12	1.56E-13
12099.00	1.50	5.77E-03	4.24E-04	3.88E-05	3.17E-06	1.76E-07	4.22E-09	5.22E-11	6.76E-13
		1.71E-03	2.24E-05	3.44E-07	6.94E-09	2.33E-10	1.78E-11	1.71E-12	1.66E-13
12905.60	1.60	7.27E-03	5.14E-04	4.49E-05	3.66E-06	2.03E-07	4.87E-09	6.02E-11	7.75E-13
		2.62E-03	4.99E-05	9.18E-07	1.75E-08	4.37E-10	2.38E-11	2.00E-12	1.66E-13
13712.20	1.70	9.14E-03	6.31E-04	5.38E-05	4.36E-06	2.41E-07	5.78E-09	7.14E-11	9.06E-13
		3.63E-03	8.17E-05	1.59E-06	2.99E-08	6.73E-10	3.04E-11	2.31E-12	2.77E-13
14518.80	1.80	1.09E-02	7.37E-04	6.16E-05	4.96E-06	2.74E-07	6.57E-09	8.11E-11	1.02E-12
		4.71E-03	1.15E-04	2.28E-06	4.27E-08	3.15E-10	3.71E-11	2.60E-12	2.25E-13
15325.40	1.90	1.28E-02	8.50E-04	6.95E-05	5.60E-06	3.09E-07	7.42E-09	9.15E-11	1.14E-12
		5.78E-03	1.48E-04	2.98E-06	5.57E-08	1.18E-09	4.38E-11	2.87E-12	2.42E-13
16132.00	2.00	1.41E-02	9.04E-04	7.28E-05	5.80E-06	3.20E-07	7.67E-09	9.47E-11	1.18E-12
		6.84E-03	1.81E-04	3.65E-06	6.86E-08	1.40E-09	4.99E-11	3.13E-12	2.56E-13

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 6000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	1.0E 01	1.0E 00	1.0E-01	Density x Normal	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
16038.60	2.10	1.53E-02	9.57E-04	7.53E-05	5.96E-06	3.28E-07	3.28E-07	7.07E-09	9.72E-11	1.22E-12
17745.20	2.20	7.88E-03	2.14E-04	4.38E-06	8.14E-08	1.84E-09	1.84E-09	5.81E-11	3.37E-12	2.69E-13
18551.80	2.30	1.63E-02	9.96E-04	7.67E-05	6.03E-06	3.32E-07	3.32E-07	7.04E-09	9.84E-11	1.24E-12
19358.40	2.40	8.07E-03	2.45E-04	5.04E-06	9.35E-08	1.87E-09	1.87E-09	6.10E-11	3.59E-12	2.80E-13
20165.00	2.50	1.73E-02	1.13E-03	7.77E-05	6.08E-06	3.34E-07	3.34E-07	8.01E-09	9.92E-11	1.26E-12
20971.60	2.60	9.80E-03	2.75E-04	5.66E-06	1.05E-07	2.08E-09	2.08E-09	6.71E-11	3.70E-12	2.90E-13
21778.20	2.70	1.82E-02	1.36E-03	7.84E-05	6.09E-06	3.35E-07	3.35E-07	8.05E-09	1.01E-10	1.31E-12
22584.80	2.80	1.07E-02	3.03E-04	6.25E-06	1.16E-07	2.26E-09	2.26E-09	7.20E-11	3.94E-12	2.94E-13
23391.40	2.90	1.90E-02	1.38E-03	7.89E-05	6.10E-06	3.35E-07	3.35E-07	8.07E-09	1.02E-10	1.33E-12
24198.00	3.00	1.15E-02	3.28E-04	6.80E-06	1.26E-07	2.47E-09	2.47E-09	7.66E-11	4.11E-12	3.05E-13
25004.60	3.10	1.99E-02	1.11E-03	7.95E-05	6.12E-06	3.36E-07	3.36E-07	8.13E-09	1.03E-10	1.39E-12
25811.20	3.20	1.23E-02	3.52E-04	7.31E-06	1.35E-07	2.64E-09	2.64E-09	8.07E-11	4.25E-12	3.11E-13
26617.80	3.30	2.09E-02	1.14E-03	8.01E-05	6.14E-06	3.39E-07	3.39E-07	8.43E-09	1.16E-10	1.81E-12
27424.40	3.40	1.30E-02	3.75E-04	7.78E-06	1.44E-07	2.80E-09	2.80E-09	8.50E-11	4.42E-12	3.21E-13
28231.00	3.50	2.20E-02	1.17E-03	8.09E-05	6.16E-06	3.40E-07	3.40E-07	8.53E-09	1.20E-10	1.93E-12
29037.60	3.60	1.36E-02	3.95E-04	8.21E-06	1.52E-07	2.95E-09	2.95E-09	8.91E-11	4.60E-12	3.32E-13
29844.20	3.70	2.32E-02	1.21E-03	8.18E-05	6.20E-06	3.45E-07	3.45E-07	9.03E-09	1.40E-10	2.60E-12
30650.80	3.80	1.42E-02	4.14E-04	8.61E-06	1.59E-07	3.09E-09	3.09E-09	9.20E-11	4.76E-12	3.42E-13
31457.40	3.90	2.46E-02	1.26E-03	8.30E-05	6.24E-06	3.51E-07	3.51E-07	9.53E-09	1.60E-10	3.25E-12
32264.00	4.00	1.47E-02	4.31E-04	8.97E-06	1.66E-07	3.21E-09	3.21E-09	9.61E-11	4.90E-12	3.50E-13
33070.60	4.10	2.61E-02	1.30E-03	8.42E-05	6.28E-06	3.52E-07	3.52E-07	9.63E-09	1.63E-10	3.35E-12
33877.20	4.20	1.52E-02	4.46E-04	9.29E-06	1.72E-07	3.32E-09	3.32E-09	9.91E-11	5.02E-12	3.57E-13
		2.76E-02	1.35E-03	8.56E-05	6.37E-06	3.70E-07	3.70E-07	1.14E-09	2.35E-10	5.67E-12
		1.57E-02	4.60E-04	9.59E-06	1.77E-07	3.43E-09	3.43E-09	1.02E-10	5.13E-12	3.63E-13
		2.92E-02	1.40E-03	8.70E-05	6.42E-06	3.75E-07	3.75E-07	1.18E-09	2.49E-10	6.13E-12
		1.61E-02	4.73E-04	9.85E-06	1.82E-07	3.52E-09	3.52E-09	1.04E-10	5.22E-12	3.68E-13
		3.11E-02	1.46E-03	8.84E-05	6.47E-06	3.77E-07	3.77E-07	1.19E-09	2.51E-10	6.18E-12
		1.64E-02	4.84E-04	1.01E-05	1.86E-07	3.60E-09	3.60E-09	1.06E-10	5.30E-12	3.72E-13
		3.32E-02	1.53E-03	9.09E-05	6.57E-06	3.90E-07	3.90E-07	1.29E-09	2.95E-10	7.54E-12
		1.69E-02	5.01E-04	1.05E-05	1.93E-07	3.73E-09	3.73E-09	1.09E-10	5.41E-12	3.77E-13
		3.56E-02	1.61E-03	9.25E-05	6.63E-06	3.93E-07	3.93E-07	1.31E-09	3.02E-10	7.81E-12
		1.75E-02	5.18E-04	1.08E-05	2.00E-07	3.85E-09	3.85E-09	1.12E-10	5.50E-12	3.81E-13
		3.80E-02	1.68E-03	9.46E-05	6.71E-06	3.96E-07	3.96E-07	1.32E-09	3.04E-10	7.85E-12
		1.79E-02	5.35E-04	1.12E-05	2.06E-07	3.97E-09	3.97E-09	1.15E-10	5.60E-12	3.85E-13
		4.08E-02	1.75E-03	9.69E-05	6.78E-06	4.00E-07	4.00E-07	1.34E-09	3.10E-10	8.07E-12
		1.84E-02	5.49E-04	1.15E-05	2.12E-07	4.07E-09	4.07E-09	1.16E-10	5.68E-12	3.88E-13
		4.34E-02	1.85E-03	9.90E-05	6.85E-06	4.02E-07	4.02E-07	1.35E-09	3.11E-10	8.09E-12
		1.88E-02	5.62E-04	1.18E-05	2.17E-07	4.17E-09	4.17E-09	1.28E-10	5.74E-12	3.92E-13
		4.64E-02	1.95E-03	1.02E-04	6.93E-06	4.05E-07	4.05E-07	1.35E-09	3.12E-10	8.10E-12
		1.91E-02	5.74E-04	1.20E-05	2.22E-07	4.26E-09	4.26E-09	1.23E-10	5.83E-12	3.95E-13
		4.95E-02	2.04E-03	1.04E-04	7.00E-06	4.06E-07	4.06E-07	1.37E-09	3.12E-10	8.10E-12
		1.94E-02	5.85E-04	1.22E-05	2.26E-07	4.33E-09	4.33E-09	1.26E-10	5.89E-12	3.97E-13
		5.34E-02	2.15E-03	1.09E-04	7.11E-06	4.09E-07	4.09E-07	1.36E-09	3.13E-10	8.11E-12
		1.97E-02	5.94E-04	1.24E-05	2.30E-07	4.40E-09	4.40E-09	1.25E-10	5.95E-12	4.00E-13

34683.80	4.30	5.72E-02	2.30E-03	1.11E-04	7.20E-06	4.12E-07	1.37E-09	3.14E-10	8.12E-12
35490.40	4.40	5.20E-02	2.47E-03	1.18E-04	7.33E-06	4.46E-09	1.27E-10	6.01E-12	4.03E-13
36297.00	4.50	2.01E-02	6.09E-04	1.28E-05	2.36E-07	4.52E-09	1.29E-10	3.14E-10	8.13E-12
37103.60	4.60	6.67E-02	2.64E-03	1.31E-04	2.47E-06	4.10E-07	1.37E-09	3.15E-10	4.09E-13
37910.20	4.70	2.03E-02	6.15E-04	1.29E-05	2.38E-07	4.57E-09	1.30E-10	6.17E-12	4.14E-13
38716.80	4.80	7.23E-02	2.85E-03	1.27E-04	2.64E-06	4.22E-07	1.39E-09	3.15E-10	8.15E-12
39523.40	4.90	2.05E-02	6.20E-04	1.35E-05	2.40E-07	4.61E-09	1.31E-10	6.23E-12	4.18E-13
40330.00	5.00	7.70E-02	3.03E-03	1.33E-04	2.80E-06	4.25E-07	1.39E-09	3.16E-10	8.16E-12
41136.60	5.10	2.06E-02	6.25E-04	1.31E-05	2.42E-07	4.64E-09	1.32E-10	6.29E-12	4.22E-13
41943.20	5.20	6.21E-02	3.23E-03	1.39E-04	7.98E-06	4.30E-07	1.39E-09	3.17E-10	8.17E-12
42749.80	5.30	2.08E-02	6.29E-04	1.32E-05	2.44E-07	4.68E-09	1.33E-10	6.33E-12	4.26E-13
43556.40	5.40	6.67E-02	3.42E-03	1.45E-04	8.15E-06	4.34E-07	1.40E-09	3.18E-10	8.18E-12
44363.00	5.50	2.09E-02	6.33E-04	1.33E-05	2.45E-07	4.70E-09	1.34E-10	6.37E-12	4.29E-13
45169.60	5.60	9.11E-02	3.61E-03	1.51E-04	8.33E-06	4.38E-07	1.41E-09	3.18E-10	8.19E-12
45976.20	5.70	2.10E-02	6.36E-04	1.33E-05	2.46E-07	4.73E-09	1.35E-10	6.41E-12	4.31E-13
46782.80	5.80	2.10E-02	6.36E-04	1.33E-05	2.46E-07	4.73E-09	1.35E-10	6.41E-12	4.31E-13
47589.40	5.90	9.66E-02	3.81E-03	1.58E-04	8.51E-06	4.42E-07	1.41E-09	3.19E-10	8.20E-12
48396.00	6.00	2.10E-02	6.38E-04	1.34E-05	2.47E-07	4.75E-09	1.36E-10	6.44E-12	4.33E-13
49202.60	6.10	1.03E-01	3.96E-03	1.62E-04	8.63E-06	4.45E-07	1.42E-09	3.20E-10	8.21E-12
50009.20	6.20	2.11E-02	6.41E-04	1.35E-05	2.48E-07	4.77E-09	1.36E-10	6.47E-12	4.35E-13
50815.80	6.30	1.07E-01	4.20E-03	1.70E-04	8.85E-06	4.50E-07	1.43E-09	3.20E-10	8.22E-12
51622.40	6.40	2.12E-02	6.43E-04	1.35E-05	2.49E-07	4.78E-09	1.37E-10	6.49E-12	4.37E-13
52429.00	6.50	1.11E-01	4.34E-03	1.74E-04	8.96E-06	4.53E-07	1.43E-09	3.21E-10	8.22E-12
53235.60	6.60	2.12E-02	6.46E-04	1.35E-05	2.50E-07	4.80E-09	1.37E-10	6.51E-12	4.38E-13
54042.20	6.70	2.12E-02	6.46E-04	1.35E-05	2.50E-07	4.80E-09	1.37E-10	6.51E-12	4.38E-13
		2.13E-02	6.48E-04	1.36E-05	2.52E-07	4.83E-09	1.38E-10	6.55E-12	4.41E-13
		1.26E-01	4.92E-03	1.91E-04	9.44E-06	4.64E-07	1.45E-09	3.23E-10	8.24E-12
		2.13E-02	6.50E-04	1.36E-05	2.52E-07	4.84E-09	1.38E-10	6.56E-12	4.42E-13
		1.28E-01	4.99E-03	1.92E-04	9.51E-06	4.66E-07	1.45E-09	3.23E-10	8.25E-12
		2.14E-02	6.51E-04	1.37E-05	2.52E-07	4.84E-09	1.38E-10	6.57E-12	4.42E-13
		1.29E-01	5.04E-03	1.95E-04	9.55E-06	4.67E-07	1.45E-09	3.23E-10	8.25E-12
		2.14E-02	6.51E-04	1.37E-05	2.53E-07	4.85E-09	1.39E-10	6.58E-12	4.43E-13
		1.32E-01	5.17E-03	1.99E-04	9.69E-06	4.70E-07	1.46E-09	3.24E-10	8.26E-12
		2.14E-02	6.52E-04	1.37E-05	2.53E-07	4.86E-09	1.39E-10	6.59E-12	4.43E-13
		1.34E-01	5.22E-03	2.01E-04	9.74E-06	4.71E-07	1.46E-09	3.24E-10	8.26E-12
		2.14E-02	6.53E-04	1.37E-05	2.53E-07	4.86E-09	1.39E-10	6.59E-12	4.44E-13
		1.34E-01	5.25E-03	2.02E-04	9.77E-06	4.72E-07	1.46E-09	3.24E-10	8.26E-12
		2.14E-02	6.53E-04	1.37E-05	2.53E-07	4.87E-09	1.39E-10	6.60E-12	4.44E-13
		1.35E-01	5.31E-03	2.04E-04	9.84E-06	4.73E-07	1.46E-09	3.25E-10	8.26E-12
		2.15E-02	6.54E-04	1.37E-05	2.54E-07	4.87E-09	1.39E-10	6.60E-12	4.44E-13
		1.36E-01	5.35E-03	2.05E-04	9.87E-06	4.74E-07	1.46E-09	3.25E-10	8.26E-12
		2.15E-02	6.54E-04	1.37E-05	2.54E-07	4.87E-09	1.39E-10	6.61E-12	4.45E-13
		1.36E-01	5.36E-03	2.06E-04	9.88E-06	4.75E-07	1.46E-09	3.25E-10	8.27E-12
		2.15E-02	6.54E-04	1.38E-05	2.54E-07	4.87E-09	1.39E-10	6.61E-12	4.45E-13
		1.37E-01	5.39E-03	2.07E-04	9.91E-06	4.75E-07	1.46E-09	3.25E-10	8.27E-12
		2.15E-02	6.55E-04	1.38E-05	2.54E-07	4.88E-09	1.39E-10	6.61E-12	4.45E-13

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 6000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal						
		1.0E 01	1.0E 00	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05
54848.80	6.80	1.37E-01	5.40E-03	2.97E-04	9.93E-06	4.76E-07	1.46E-08	3.25E-10
55055.40	6.90	1.37E-01	5.41E-03	2.98E-04	9.93E-06	4.76E-07	1.46E-08	3.25E-10
56462.00	7.00	1.38E-01	5.42E-03	2.99E-04	9.94E-06	4.77E-07	1.47E-08	3.25E-10
57260.60	7.10	1.39E-01	5.43E-03	3.00E-04	9.95E-06	4.78E-07	1.47E-08	3.25E-10
58075.20	7.20	1.41E-01	5.46E-03	3.02E-04	9.95E-06	4.78E-07	1.47E-08	3.25E-10
58881.80	7.30	1.42E-01	5.52E-03	3.09E-04	9.96E-06	4.76E-07	1.47E-08	3.25E-10
59688.40	7.40	1.44E-01	5.55E-03	3.10E-04	9.97E-06	4.76E-07	1.47E-08	3.25E-10
60495.00	7.50	1.45E-01	5.57E-03	3.10E-04	9.97E-06	4.77E-07	1.47E-08	3.25E-10
61301.60	7.60	1.46E-01	5.60E-03	3.10E-04	9.97E-06	4.77E-07	1.47E-08	3.25E-10
62108.20	7.70	1.47E-01	5.62E-03	3.11E-04	9.98E-06	4.77E-07	1.47E-08	3.25E-10
62914.80	7.80	1.48E-01	5.64E-03	3.11E-04	9.98E-06	4.77E-07	1.47E-08	3.25E-10
63721.40	7.90	1.49E-01	5.66E-03	3.11E-04	9.99E-06	4.77E-07	1.47E-08	3.25E-10
64528.00	8.00	1.50E-01	5.68E-03	3.11E-04	9.99E-06	4.77E-07	1.47E-08	3.25E-10
65334.60	8.10	1.50E-01	5.69E-03	3.12E-04	9.99E-06	4.77E-07	1.47E-08	3.25E-10
66141.20	8.20	1.51E-01	5.70E-03	3.12E-04	1.00E-05	4.77E-07	1.47E-08	3.25E-10
66947.80	8.30	1.52E-01	5.72E-03	3.12E-04	1.00E-05	4.77E-07	1.47E-08	3.25E-10
67754.40	8.40	1.52E-01	5.73E-03	3.12E-04	1.00E-05	4.77E-07	1.47E-08	3.25E-10
68561.00	8.50	1.53E-01	5.74E-03	3.12E-04	1.00E-05	4.78E-07	1.47E-08	3.25E-10
69367.60	8.60	1.53E-01	5.75E-03	3.12E-04	1.00E-05	4.78E-07	1.47E-08	3.25E-10
70174.20	8.70	1.53E-01	5.75E-03	3.12E-04	1.00E-05	4.78E-07	1.47E-08	3.25E-10
70980.80	8.80	1.54E-01	5.76E-03	3.13E-04	1.00E-05	4.78E-07	1.47E-08	3.25E-10
71787.40	8.90	1.54E-01	5.77E-03	3.13E-04	1.00E-05	4.78E-07	1.47E-08	3.25E-10
		3.77E-02	1.00E-03	3.82E-05	3.02E-07	5.37E-09	1.44E-10	4.46E-13

72594.00	9.00	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
73400.40	9.10	3.79E-02	1.01E-03	1.83E-05	3.03E-07	5.38E-09	1.45E-10	6.60E-12	4.47E-13
74207.20	9.20	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
75013.60	9.30	3.80E-02	1.01E-03	1.83E-05	3.03E-07	5.38E-09	1.45E-10	6.60E-12	4.47E-13
75820.40	9.40	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
76627.00	9.50	3.81E-02	1.01E-03	1.83E-05	3.03E-07	5.39E-09	1.45E-10	6.60E-12	4.47E-13
77433.60	9.60	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
78240.20	9.70	3.82E-02	1.02E-03	1.84E-05	3.04E-07	5.39E-09	1.45E-10	6.60E-12	4.47E-13
79046.80	9.80	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
79853.40	9.90	3.82E-02	1.02E-03	1.84E-05	3.04E-07	5.39E-09	1.45E-10	6.60E-12	4.47E-13
80660.00	10.00	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
81466.60	10.10	3.82E-02	1.02E-03	1.84E-05	3.04E-07	5.39E-09	1.45E-10	6.60E-12	4.47E-13
82273.20	10.20	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
83079.80	10.30	3.82E-02	1.02E-03	1.84E-05	3.04E-07	5.39E-09	1.45E-10	6.60E-12	4.47E-13
83886.40	10.40	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
84693.00	10.50	3.82E-02	1.02E-03	1.84E-05	3.04E-07	5.39E-09	1.45E-10	6.60E-12	4.47E-13
85499.60	10.60	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
86306.20	10.70	3.82E-02	1.02E-03	1.84E-05	3.04E-07	5.39E-09	1.45E-10	6.60E-12	4.47E-13
87112.80	10.80	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
87919.40	10.90	3.82E-02	1.02E-03	1.84E-05	3.04E-07	5.39E-09	1.45E-10	6.60E-12	4.47E-13
88726.00	11.00	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
89532.60	11.10	3.82E-02	1.02E-03	1.84E-05	3.04E-07	5.39E-09	1.45E-10	6.60E-12	4.47E-13
90339.20	11.20	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
91145.80	11.30	3.82E-02	1.02E-03	1.84E-05	3.04E-07	5.39E-09	1.45E-10	6.60E-12	4.47E-13
91952.40	11.40	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
92759.00	11.50	3.82E-02	1.02E-03	1.84E-05	3.04E-07	5.39E-09	1.45E-10	6.60E-12	4.47E-13
93565.60	11.60	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
94372.20	11.70	3.82E-02	1.02E-03	1.84E-05	3.04E-07	5.39E-09	1.45E-10	6.60E-12	4.47E-13
95178.80	11.80	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
95985.40	11.90	3.82E-02	1.02E-03	1.84E-05	3.04E-07	5.39E-09	1.45E-10	6.60E-12	4.47E-13
96792.00	12.00	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
97598.60	12.10	3.82E-02	1.02E-03	1.84E-05	3.04E-07	5.39E-09	1.45E-10	6.60E-12	4.47E-13
98405.20	12.20	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
99211.80	12.30	3.82E-02	1.02E-03	1.84E-05	3.04E-07	5.39E-09	1.45E-10	6.60E-12	4.47E-13
100018.40	12.40	1.54E-01	5.77E-03	2.13E-04	1.00E-05	4.70E-07	1.47E-09	3.24E-10	8.27E-12
100825.00	12.50	3.82E-02	1.02E-03	1.84E-05	3.04E-07	5.39E-09	1.45E-10	6.60E-12	4.47E-13

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 6000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density x Normal									
		1.0E 01	1.0E 00	1.0E-01	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07	10.0E-08	10.0E-09
102841.50	12.75	1.55E-01	5.78E-03	2.13E-04	1.01E-05	4.82E-07	1.49E-08	3.39E-10	9.59E-12		
104350.00	13.00	3.83E-02	1.52E-03	1.84E-05	3.07E-07	6.16E-09	2.63E-10	1.97E-11	1.75E-12		
106874.50	13.25	3.83E-02	1.02E-03	1.84E-05	3.07E-07	6.22E-07	2.72E-10	2.07E-11	1.89E-12		
108691.00	13.50	3.83E-02	1.02E-03	2.13E-04	1.01E-05	4.82E-07	1.49E-08	3.41E-10	9.74E-12		
110907.50	13.75	3.83E-02	1.02E-03	1.84E-05	3.07E-07	6.22E-07	2.72E-10	2.13E-11	1.92E-12		
112824.00	14.00	1.55E-01	5.78E-03	2.13E-04	1.01E-05	4.82E-07	1.49E-08	3.41E-10	9.80E-12		
114640.50	14.25	3.83E-02	1.02E-03	1.84E-05	3.07E-07	6.22E-07	2.72E-10	2.13E-11	1.94E-12		
116857.00	14.50	3.83E-02	1.02E-03	2.13E-04	1.01E-05	4.82E-07	1.49E-08	3.41E-10	1.00E-11		
118873.50	14.75	3.83E-02	1.02E-03	1.84E-05	3.07E-07	6.22E-07	2.72E-10	2.13E-11	2.17E-12		
120900.00	15.00	3.83E-02	1.02E-03	2.13E-04	1.01E-05	4.82E-07	1.49E-08	3.41E-10	1.01E-11		
123008.50	15.25	3.83E-02	1.02E-03	1.84E-05	3.07E-07	6.22E-07	2.72E-10	2.13E-11	2.17E-12		
125023.00	15.50	3.83E-02	1.02E-03	2.13E-04	1.01E-05	4.82E-07	1.49E-08	3.41E-10	1.01E-11		
127039.50	15.75	3.83E-02	1.02E-03	1.84E-05	3.07E-07	6.22E-07	2.72E-10	2.13E-11	2.17E-12		
129056.00	16.00	3.83E-02	1.02E-03	2.13E-04	1.01E-05	4.82E-07	1.49E-08	3.41E-10	1.01E-11		
131072.50	16.25	3.83E-02	1.02E-03	1.84E-05	3.07E-07	6.22E-07	2.72E-10	2.13E-11	2.17E-12		
133089.00	16.50	3.83E-02	1.02E-03	2.13E-04	1.01E-05	4.82E-07	1.49E-08	3.41E-10	1.01E-11		
135105.50	16.75	3.83E-02	1.02E-03	1.84E-05	3.07E-07	6.22E-07	2.72E-10	2.13E-11	2.17E-12		
137122.00	17.00	3.83E-02	1.02E-03	2.13E-04	1.01E-05	4.82E-07	1.49E-08	3.41E-10	1.01E-11		
139138.50	17.25	3.83E-02	1.02E-03	1.84E-05	3.07E-07	6.22E-07	2.72E-10	2.13E-11	2.17E-12		
141155.00	17.50	3.83E-02	1.02E-03	2.13E-04	1.01E-05	4.82E-07	1.49E-08	3.41E-10	1.01E-11		
143171.50	17.75	3.83E-02	1.02E-03	1.84E-05	3.07E-07	6.22E-07	2.72E-10	2.13E-11	2.17E-12		
145188.00	18.00	3.83E-02	1.02E-03	2.13E-04	1.01E-05	4.82E-07	1.49E-08	3.41E-10	1.01E-11		

Wave Number (cm ⁻¹)	Photon Energy (eV)	1.0E 01	1.0E 00	1.0E-01	Density × Normal	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07
4639.60	0.60	1.28E-04	4.55E-06	1.60E-07	6.99E-09	5.12E-10	4.06E-11	4.77E-12	4.58E-13	4.58E-13
6.37E-05		1.99E-06	7.58E-08	4.78E-09	4.78E-09	4.77E-10	4.02E-11	4.77E-12	4.58E-13	4.58E-13
2.80E-04	0.70	1.38E-05	7.92E-07	3.91E-08	3.91E-08	1.57E-09	1.07E-10	9.95E-12	9.49E-13	9.49E-13
1.26E-04		3.78E-06	1.44E-07	9.59E-09	9.59E-09	9.85E-10	1.00E-10	9.69E-12	9.46E-13	9.46E-13
6.97E-04	0.80	4.73E-05	3.94E-06	1.67E-07	1.67E-07	4.56E-09	1.00E-10	1.55E-11	1.46E-12	1.46E-12
1.88E-04		9.37E-06	2.14E-07	1.50E-08	1.50E-08	1.51E-09	1.54E-10	1.52E-11	1.46E-12	1.46E-12
6.00E-03	0.90	1.29E-04	9.86E-06	4.93E-07	4.93E-07	1.18E-08	3.33E-10	2.34E-11	2.15E-12	2.15E-12
2.51E-04		6.79E-06	2.79E-07	2.15E-08	2.15E-08	2.20E-09	2.25E-10	2.23E-11	2.15E-12	2.15E-12
8066.00	1.00	2.94E-03	2.52E-04	1.97E-05	9.63E-07	2.23E-08	5.15E-10	3.14E-11	2.93E-12	2.93E-12
3.16E-04		8.08E-06	3.38E-07	2.73E-08	2.73E-08	2.88E-09	2.96E-10	2.93E-11	2.81E-12	2.81E-12
4.48E-03	1.10	3.96E-04	3.11E-05	1.55E-06	1.55E-06	3.44E-08	7.10E-10	3.91E-11	3.48E-12	3.48E-12
3.82E-04		9.23E-06	3.90E-07	3.20E-08	3.20E-08	3.50E-09	3.60E-10	3.57E-11	3.42E-12	3.42E-12
6.02E-03	1.20	6.15E-04	4.87E-05	2.43E-06	2.43E-06	5.26E-08	9.69E-10	4.78E-11	4.31E-12	4.31E-12
4.45E-04		1.03E-05	4.30E-07	3.74E-08	3.74E-08	4.08E-09	4.20E-10	4.14E-11	3.94E-12	3.94E-12
9.08E-03	1.30	8.26E-04	6.56E-05	3.27E-06	3.27E-06	7.01E-08	1.21E-09	5.93E-11	4.51E-12	4.51E-12
3.18E-04		1.12E-05	4.78E-07	4.15E-08	4.15E-08	4.56E-09	4.70E-10	4.66E-11	4.44E-12	4.44E-12
1.26E-02	1.40	1.15E-03	9.10E-05	4.57E-06	4.57E-06	9.69E-08	1.55E-09	6.07E-11	4.90E-12	4.90E-12
5.88E-04		1.22E-03	5.10E-07	4.47E-08	4.47E-08	4.94E-09	5.00E-10	5.94E-11	4.81E-12	4.81E-12
1.64E-02	1.50	1.47E-03	1.16E-04	5.75E-06	5.75E-06	1.22E-07	1.66E-09	6.06E-11	5.27E-12	5.27E-12
3.36E-03		3.20E-05	9.28E-07	5.71E-08	5.71E-08	5.72E-09	5.52E-10	5.36E-11	5.10E-12	5.10E-12
2.06E-02	1.60	1.76E-03	1.36E-04	6.74E-06	6.74E-06	1.42E-07	2.15E-09	7.43E-11	5.74E-12	5.74E-12
3.01E-03		7.38E-03	1.62E-04	7.90E-08	7.90E-08	6.47E-09	6.17E-10	5.91E-11	5.69E-12	5.69E-12
2.63E-02	1.70	2.17E-03	1.66E-04	8.20E-06	8.20E-06	1.72E-07	2.54E-09	8.20E-11	6.25E-12	6.25E-12
4.98E-03		1.28E-04	2.89E-06	1.04E-07	1.04E-07	7.72E-09	8.84E-10	6.95E-11	6.02E-12	6.02E-12
3.16E-02	1.80	2.53E-03	1.92E-04	9.43E-06	9.43E-06	1.98E-07	2.68E-09	9.95E-11	6.79E-12	6.79E-12
7.07E-03		1.84E-04	4.02E-06	1.30E-07	1.30E-07	9.74E-09	7.74E-10	6.94E-11	6.51E-12	6.51E-12
3.75E-02	1.90	2.94E-03	2.22E-04	1.09E-05	1.09E-05	2.28E-07	3.27E-09	9.08E-11	7.14E-12	7.14E-12
9.25E-03		2.42E-04	5.19E-06	1.54E-07	1.54E-07	9.32E-09	8.82E-10	7.36E-11	6.8E-12	6.8E-12
4.11E-02	2.00	3.13E-03	2.33E-04	1.14E-05	1.14E-05	2.39E-07	3.44E-09	1.03E-10	7.49E-12	7.49E-12
1.15E-02		3.02E-04	6.39E-06	1.85E-07	1.85E-07	1.07E-08	8.54E-10	7.75E-11	7.20E-12	7.20E-12
4.43E-02	2.10	3.34E-03	2.72E-04	1.28E-06	1.28E-06	2.10E-07	3.02E-09	1.07E-10	7.73E-12	7.73E-12
1.38E-02		3.62E-04	7.68E-06	2.10E-07	2.10E-07	1.16E-08	9.82E-10	8.08E-11	7.49E-12	7.49E-12
4.70E-02	2.20	3.40E-03	2.47E-04	1.29E-05	1.29E-05	2.53E-07	3.66E-09	1.11E-10	7.97E-12	7.97E-12
1.68E-02		4.21E-04	8.79E-06	2.32E-07	2.32E-07	1.25E-08	9.45E-10	8.38E-11	7.73E-12	7.73E-12
1.81E-02	2.30	4.78E-04	9.94E-06	2.65E-07	2.65E-07	1.33E-08	9.83E-10	8.62E-11	8.05E-12	8.05E-12
5.16E-02		3.54E-03	2.92E-04	1.22E-05	1.22E-05	2.58E-07	3.00E-09	1.17E-10	8.57E-12	8.57E-12
2.02E-02		5.34E-04	1.11E-05	2.84E-07	2.84E-07	1.40E-08	1.06E-09	8.95E-11	8.69E-12	8.69E-12
5.36E-02	2.50	3.59E-03	2.53E-04	1.23E-05	1.23E-05	2.59E-07	3.85E-09	1.19E-10	8.53E-12	8.53E-12
2.22E-02		3.87E-04	1.21E-05	3.08E-07	3.08E-07	1.47E-08	1.05E-09	9.08E-11	8.21E-12	8.21E-12
5.56E-02	2.60	3.65E-03	2.54E-04	1.23E-05	1.23E-05	2.61E-07	3.92E-09	1.22E-10	8.66E-12	8.66E-12
2.41E-02		6.38E-04	1.31E-05	3.29E-07	3.29E-07	1.54E-08	1.07E-09	9.15E-11	8.32E-12	8.32E-12
5.78E-02	2.70	3.71E-03	2.54E-04	1.23E-05	1.23E-05	2.72E-07	4.35E-09	1.17E-10	9.25E-12	9.25E-12
2.59E-02		8.86E-04	1.91E-05	3.50E-07	3.50E-07	1.61E-08	1.11E-09	1.31E-11	8.54E-12	8.54E-12

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 7000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density x Normal									
		1.0E 01	1.0E 00	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07	1.0E-08
22584.80	2.80	6.01E-02	3.77E-03	2.57E-04	1.25E-05	2.77E-07	4.52E-09	1.40E-10	9.42E-12	9.42E-12	9.42E-12
2276E-02		2.76E-02	7.31E-04	1.50E-05	3.70E-07	1.66E-09	1.13E-09	9.70E-11	9.70E-11	9.70E-11	9.70E-11
6.25E-02	2.90	6.25E-02	3.04E-03	2.60E-04	1.20E-05	2.94E-07	5.14E-09	1.45E-10	1.04E-11	1.04E-11	1.04E-11
2.92E-02		2.92E-02	7.74E-04	1.54E-05	3.69E-07	1.73E-08	1.19E-09	9.90E-11	9.90E-11	9.90E-11	9.90E-11
24188.00	3.00	6.51E-02	3.92E-03	2.63E-04	1.31E-05	3.13E-07	5.84E-09	1.80E-10	1.12E-11	1.12E-11	1.12E-11
3.07E-02		3.07E-02	8.14E-04	1.67E-05	4.07E-07	1.81E-08	1.22E-09	1.02E-10	9.19E-11	9.19E-11	9.19E-11
6.79E-02	3.10	6.79E-02	4.00E-03	2.65E-04	1.32E-05	3.10E-07	6.08E-09	1.94E-10	1.15E-11	1.15E-11	1.15E-11
3.21E-02		3.21E-02	8.51E-04	1.74E-05	4.23E-07	1.87E-08	1.25E-09	1.02E-10	9.35E-11	9.35E-11	9.35E-11
25811.20	3.20	7.07E-02	4.09E-03	2.71E-04	1.40E-05	3.76E-07	8.10E-09	2.61E-10	1.34E-11	1.34E-11	1.34E-11
3.34E-02		3.34E-02	8.46E-04	1.81E-05	4.30E-07	1.75E-08	1.27E-09	1.02E-10	9.49E-11	9.49E-11	9.49E-11
26417.80	3.30	7.35E-02	4.11E-03	2.75E-04	1.43E-05	3.92E-07	8.46E-09	2.70E-10	1.42E-11	1.42E-11	1.42E-11
3.46E-02		3.46E-02	9.18E-04	1.88E-05	4.52E-07	1.96E-08	1.29E-09	1.07E-10	9.61E-11	9.61E-11	9.61E-11
27424.40	3.40	7.67E-02	4.26E-03	2.78E-04	1.44E-05	3.94E-07	8.76E-09	2.82E-10	1.43E-11	1.43E-11	1.43E-11
3.57E-02		3.57E-02	9.48E-04	1.94E-05	4.65E-07	2.00E-08	1.31E-09	1.08E-10	9.71E-11	9.71E-11	9.71E-11
6.07E-02	3.50	6.07E-02	4.42E-03	2.85E-04	1.51E-05	4.30E-07	1.02E-09	3.29E-10	1.57E-11	1.57E-11	1.57E-11
3.75E-02		3.75E-02	9.95E-04	2.03E-05	4.85E-07	2.04E-08	1.34E-09	1.09E-10	9.80E-11	9.80E-11	9.80E-11
8.50E-02	3.60	8.50E-02	4.55E-03	2.90E-04	1.54E-05	4.49E-07	1.04E-09	3.39E-10	1.61E-11	1.61E-11	1.61E-11
3.93E-02		3.93E-02	1.04E-03	2.13E-05	5.05E-07	2.12E-08	1.36E-09	1.11E-10	9.37E-11	9.37E-11	9.37E-11
8.94E-02	3.70	8.94E-02	4.70E-03	2.96E-04	1.56E-05	4.54E-07	1.07E-09	3.42E-10	1.62E-11	1.62E-11	1.62E-11
4.10E-02		4.10E-02	1.09E-03	2.22E-05	5.25E-07	2.18E-08	1.38E-09	1.12E-10	9.93E-11	9.93E-11	9.93E-11
9.41E-02	3.80	9.41E-02	4.84E-03	3.01E-04	1.58E-05	4.64E-07	1.10E-09	3.51E-10	1.65E-11	1.65E-11	1.65E-11
4.27E-02		4.27E-02	1.13E-03	2.31E-05	5.43E-07	2.23E-08	1.40E-09	1.12E-10	9.94E-11	9.94E-11	9.94E-11
9.84E-02	3.90	9.84E-02	4.98E-03	3.05E-04	1.60E-05	4.67E-07	1.10E-09	3.52E-10	1.66E-11	1.66E-11	1.66E-11
4.42E-02		4.42E-02	1.17E-03	2.39E-05	5.60E-07	2.28E-08	1.42E-09	1.13E-10	1.00E-11	1.00E-11	1.00E-11
1.03E-01	4.00	1.03E-01	5.14E-03	3.11E-04	1.62E-05	4.71E-07	1.11E-09	3.54E-10	1.66E-11	1.66E-11	1.66E-11
4.55E-02		4.55E-02	1.21E-03	2.47E-05	5.76E-07	2.32E-08	1.43E-09	1.14E-10	1.01E-11	1.01E-11	1.01E-11
1.08E-01	4.10	1.08E-01	5.29E-03	3.15E-04	1.63E-05	4.73E-07	1.11E-09	3.55E-10	1.67E-11	1.67E-11	1.67E-11
4.68E-02		4.68E-02	1.24E-03	2.53E-05	5.90E-07	2.36E-08	1.45E-09	1.15E-10	1.02E-11	1.02E-11	1.02E-11
1.14E-01	4.20	1.14E-01	5.47E-03	3.21E-04	1.65E-05	4.76E-07	1.12E-09	3.56E-10	1.68E-11	1.68E-11	1.68E-11
4.79E-02		4.79E-02	1.28E-03	2.59E-05	6.03E-07	2.40E-08	1.47E-09	1.16E-10	1.02E-11	1.02E-11	1.02E-11
1.20E-01	4.30	1.20E-01	5.65E-03	3.26E-04	1.66E-05	4.78E-07	1.12E-09	3.57E-10	1.68E-11	1.68E-11	1.68E-11
4.89E-02		4.89E-02	1.30E-03	2.65E-05	6.15E-07	2.45E-08	1.49E-09	1.17E-10	1.03E-11	1.03E-11	1.03E-11
1.27E-01	4.40	1.27E-01	5.87E-03	3.32E-04	1.67E-05	4.80E-07	1.12E-09	3.59E-10	1.70E-11	1.70E-11	1.70E-11
4.98E-02		4.98E-02	1.33E-03	2.70E-05	6.26E-07	2.49E-08	1.51E-09	1.19E-10	1.04E-11	1.04E-11	1.04E-11
1.34E-01	4.50	1.34E-01	6.10E-03	3.38E-04	1.69E-05	4.83E-07	1.13E-09	3.60E-10	1.71E-11	1.71E-11	1.71E-11
5.07E-02		5.07E-02	1.35E-03	2.75E-05	6.37E-07	2.53E-08	1.53E-09	1.20E-10	1.04E-11	1.04E-11	1.04E-11
1.43E-01	4.60	1.43E-01	6.39E-03	3.46E-04	1.70E-05	4.85E-07	1.13E-09	3.62E-10	1.72E-11	1.72E-11	1.72E-11
5.14E-02		5.14E-02	1.37E-03	2.79E-05	6.46E-07	2.56E-08	1.55E-09	1.21E-10	1.07E-11	1.07E-11	1.07E-11
1.51E-01	4.70	1.51E-01	6.65E-03	3.53E-04	1.72E-05	4.88E-07	1.14E-09	3.63E-10	1.73E-11	1.73E-11	1.73E-11
5.21E-02		5.21E-02	1.39E-03	2.82E-05	6.54E-07	2.59E-08	1.57E-09	1.22E-10	1.08E-11	1.08E-11	1.08E-11
1.59E-01	4.80	1.59E-01	6.93E-03	3.61E-04	1.74E-05	4.91E-07	1.14E-09	3.65E-10	1.74E-11	1.74E-11	1.74E-11
5.27E-02		5.27E-02	1.40E-03	2.86E-05	6.61E-07	2.61E-08	1.58E-09	1.23E-10	1.09E-11	1.09E-11	1.09E-11
1.67E-01	4.90	1.67E-01	7.20E-03	3.69E-04	1.76E-05	4.93E-07	1.14E-09	3.66E-10	1.75E-11	1.75E-11	1.75E-11
5.32E-02		5.32E-02	1.42E-03	2.88E-05	6.68E-07	2.64E-08	1.59E-09	1.24E-10	1.09E-11	1.09E-11	1.09E-11

40330.00	5.00	1.75E-01	7.47E-03	3.77E-04	1.77E-03	4.94E-07	1.15E-04	3.67E-10	1.75E-11
		5.37E-02	1.43E-03	2.91E-05	6.74E-07	2.46E-08	1.40E-09	1.25E-10	1.10E-11
41130.60	5.10	1.25E-01	7.76E-03	3.65E-04	1.79E-03	4.90E-07	1.15E-04	3.60E-10	1.76E-11
		5.41E-02	1.46E-03	2.93E-05	6.79E-07	2.46E-08	1.15E-09	1.26E-10	1.11E-11
41943.20	5.20	1.80E-01	7.07E-03	3.91E-04	1.80E-03	5.00E-07	1.15E-04	3.60E-10	1.76E-11
		5.45E-02	1.45E-03	2.95E-05	6.83E-07	2.46E-08	1.62E-09	1.26E-10	1.11E-11
42749.80	5.30	1.90E-01	8.20E-03	4.00E-04	1.82E-03	5.03E-07	1.10E-04	3.60E-10	1.77E-11
		5.40E-02	1.46E-03	2.97E-05	6.87E-07	2.71E-08	1.63E-09	1.27E-10	1.11E-11
43556.40	5.40	2.04E-01	8.49E-03	4.05E-04	1.84E-03	5.05E-07	1.10E-04	3.70E-10	1.77E-11
		5.51E-02	1.47E-03	2.96E-05	6.91E-07	2.72E-08	1.64E-09	1.27E-10	1.12E-11
44363.00	5.50	2.14E-01	8.78E-03	4.13E-04	1.85E-03	5.08E-07	1.10E-04	3.71E-10	1.78E-11
		5.54E-02	1.48E-03	3.00E-05	6.94E-07	2.73E-08	1.64E-09	1.28E-10	1.12E-11
45169.60	5.60	2.21E-01	9.03E-03	4.20E-04	1.87E-03	5.10E-07	1.17E-04	3.71E-10	1.78E-11
		5.58E-02	1.48E-03	3.02E-05	6.97E-07	2.74E-08	1.65E-09	1.28E-10	1.13E-11
45976.20	5.70	2.28E-01	9.17E-03	4.24E-04	1.88E-03	5.11E-07	1.17E-04	3.72E-10	1.78E-11
		5.59E-02	1.49E-03	3.03E-05	7.00E-07	2.75E-08	1.65E-09	1.28E-10	1.13E-11
46782.80	5.80	2.30E-01	9.31E-03	4.28E-04	1.89E-03	5.13E-07	1.17E-04	3.72E-10	1.79E-11
		5.60E-02	1.50E-03	3.04E-05	7.03E-07	2.76E-08	1.66E-09	1.29E-10	1.13E-11
47589.40	5.90	2.31E-01	9.43E-03	4.31E-04	1.89E-03	5.14E-07	1.17E-04	3.72E-10	1.79E-11
		5.62E-02	1.50E-03	3.05E-05	7.05E-07	2.76E-08	1.66E-09	1.29E-10	1.13E-11
48396.00	6.00	2.30E-01	9.51E-03	4.34E-04	1.90E-03	5.14E-07	1.17E-04	3.73E-10	1.79E-11
		5.64E-02	1.51E-03	3.06E-05	7.07E-07	2.77E-08	1.66E-09	1.29E-10	1.13E-11
49202.60	6.10	2.42E-01	9.73E-03	4.40E-04	1.91E-03	5.17E-07	1.17E-04	3.73E-10	1.79E-11
		5.66E-02	1.51E-03	3.07E-05	7.09E-07	2.78E-08	1.67E-09	1.29E-10	1.14E-11
50009.20	6.20	2.44E-01	9.83E-03	4.43E-04	1.92E-03	5.18E-07	1.18E-04	3.73E-10	1.79E-11
		5.67E-02	1.51E-03	3.08E-05	7.10E-07	2.78E-08	1.67E-09	1.30E-10	1.14E-11
50815.80	6.30	2.46E-01	9.89E-03	4.45E-04	1.92E-03	5.18E-07	1.18E-04	3.74E-10	1.79E-11
		5.68E-02	1.52E-03	3.08E-05	7.12E-07	2.79E-08	1.67E-09	1.30E-10	1.14E-11
51622.40	6.40	2.49E-01	1.00E-02	4.49E-04	1.93E-03	5.19E-07	1.18E-04	3.74E-10	1.80E-11
		5.69E-02	1.52E-03	3.09E-05	7.13E-07	2.79E-08	1.67E-09	1.30E-10	1.14E-11
52429.00	6.50	2.51E-01	1.01E-02	4.51E-04	1.94E-03	5.20E-07	1.18E-04	3.74E-10	1.80E-11
		5.70E-02	1.52E-03	3.09E-05	7.14E-07	2.80E-08	1.67E-09	1.30E-10	1.14E-11
53235.60	6.60	2.52E-01	1.01E-02	4.52E-04	1.94E-03	5.21E-07	1.18E-04	3.74E-10	1.80E-11
		5.71E-02	1.52E-03	3.10E-05	7.15E-07	2.80E-08	1.68E-09	1.30E-10	1.14E-11
54042.20	6.70	2.53E-01	1.02E-02	4.54E-04	1.95E-03	5.21E-07	1.18E-04	3.74E-10	1.80E-11
		5.72E-02	1.53E-03	3.10E-05	7.16E-07	2.80E-08	1.68E-09	1.30E-10	1.14E-11
54848.80	6.80	2.54E-01	1.02E-02	4.55E-04	1.95E-03	5.22E-07	1.18E-04	3.74E-10	1.80E-11
		5.73E-02	1.53E-03	3.11E-05	7.17E-07	2.81E-08	1.68E-09	1.30E-10	1.14E-11
55655.40	6.90	2.54E-01	1.02E-02	4.55E-04	1.95E-03	5.22E-07	1.18E-04	3.75E-10	1.80E-11
		5.73E-02	1.53E-03	3.11E-05	7.17E-07	2.81E-08	1.68E-09	1.30E-10	1.14E-11
56462.00	7.00	2.55E-01	1.02E-02	4.56E-04	1.95E-03	5.23E-07	1.18E-04	3.75E-10	1.80E-11
		5.73E-02	1.53E-03	3.11E-05	7.18E-07	2.81E-08	1.68E-09	1.30E-10	1.14E-11
57268.60	7.10	2.55E-01	1.03E-02	4.57E-04	1.95E-03	5.23E-07	1.18E-04	3.75E-10	1.80E-11
		5.90E-02	1.57E-03	3.16E-05	7.23E-07	2.82E-08	1.68E-09	1.30E-10	1.14E-11
58075.20	7.20	2.60E-01	1.03E-02	4.57E-04	1.95E-03	5.23E-07	1.18E-04	3.75E-10	1.80E-11
		6.22E-02	1.61E-03	3.20E-05	7.28E-07	2.82E-08	1.68E-09	1.31E-10	1.14E-11
58881.80	7.30	2.62E-01	1.04E-02	4.58E-04	1.96E-03	5.23E-07	1.18E-04	3.75E-10	1.80E-11
		6.44E-02	1.65E-03	3.25E-05	7.33E-07	2.83E-08	1.68E-09	1.31E-10	1.15E-11
59688.40	7.40	2.64E-01	1.04E-02	4.58E-04	1.96E-03	5.23E-07	1.18E-04	3.75E-10	1.80E-11
		6.65E-02	1.68E-03	3.29E-05	7.37E-07	2.83E-08	1.68E-09	1.31E-10	1.15E-11

PARTIAL FLAME MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR 700° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal					
		1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06
60495.00	7.50	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
60495.00	7.50	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
61101.60	7.60	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
61101.60	7.60	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
62108.20	7.70	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
62108.20	7.70	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
62914.60	7.80	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
62914.60	7.80	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
63721.40	7.90	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
63721.40	7.90	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
64528.00	8.00	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
64528.00	8.00	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
65334.60	8.10	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
65334.60	8.10	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
66141.20	8.20	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
66141.20	8.20	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
66947.80	8.30	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
66947.80	8.30	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
67754.40	8.40	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
67754.40	8.40	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
68561.00	8.50	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
68561.00	8.50	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
69367.60	8.60	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
69367.60	8.60	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
70174.20	8.70	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
70174.20	8.70	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
70980.80	8.80	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
70980.80	8.80	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
71787.40	8.90	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
71787.40	8.90	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
72594.00	9.00	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
72594.00	9.00	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
73400.60	9.10	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
73400.60	9.10	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
74207.20	9.20	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
74207.20	9.20	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
75013.80	9.30	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
75013.80	9.30	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
75820.40	9.40	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
75820.40	9.40	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
76627.00	9.50	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
76627.00	9.50	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
77433.60	9.60	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10
77433.60	9.60	2.66E-01	1.04E-02	4.59E-04	5.24E-07	1.19E-09	3.75E-10

70240.20	9.70	2.04E-01	1.00E-02	4.69E-04	1.99E-05	5.30E-07	1.19E-09	3.76E-10	1.00E-11
		0.50E-02	1.00E-03	3.65E-05	7.76E-07	2.00E-08	1.00E-09	1.31E-10	1.15E-11
79746.90	9.80	2.05E-01	1.00E-02	4.69E-04	2.00E-05	5.31E-07	1.19E-09	3.76E-10	1.00E-11
		0.50E-02	1.00E-03	3.65E-05	7.76E-07	2.00E-08	1.00E-09	1.31E-10	1.15E-11
79953.40	9.90	2.05E-01	1.00E-02	4.70E-04	2.00E-05	5.31E-07	1.19E-09	3.76E-10	1.00E-11
		0.50E-02	1.00E-03	3.65E-05	7.76E-07	2.00E-08	1.00E-09	1.31E-10	1.15E-11
80460.00	10.00	2.05E-01	1.00E-02	4.70E-04	2.00E-05	5.32E-07	1.19E-09	3.76E-10	1.00E-11
		0.50E-02	1.00E-03	3.65E-05	7.76E-07	2.00E-08	1.00E-09	1.31E-10	1.15E-11
81466.60	10.10	2.05E-01	1.00E-02	4.70E-04	2.00E-05	5.32E-07	1.19E-09	3.76E-10	1.00E-11
		0.50E-02	1.00E-03	3.65E-05	7.76E-07	2.00E-08	1.00E-09	1.31E-10	1.15E-11
82273.20	10.20	2.05E-01	1.00E-02	4.71E-04	2.00E-05	5.33E-07	1.19E-09	3.76E-10	1.00E-11
		0.50E-02	1.00E-03	3.65E-05	7.76E-07	2.00E-08	1.00E-09	1.31E-10	1.15E-11
83079.80	10.30	2.05E-01	1.00E-02	4.71E-04	2.01E-05	5.33E-07	1.19E-09	3.76E-10	1.00E-11
		0.50E-02	1.00E-03	3.65E-05	7.76E-07	2.00E-08	1.00E-09	1.31E-10	1.15E-11
83886.40	10.40	2.05E-01	1.00E-02	4.72E-04	2.01E-05	5.33E-07	1.19E-09	3.76E-10	1.00E-11
		0.50E-02	1.00E-03	3.65E-05	7.76E-07	2.00E-08	1.00E-09	1.31E-10	1.15E-11
84493.00	10.50	2.05E-01	1.00E-02	4.72E-04	2.01E-05	5.34E-07	1.20E-09	3.76E-10	1.01E-11
		0.50E-02	1.00E-03	3.65E-05	7.76E-07	2.00E-08	1.00E-09	1.31E-10	1.15E-11
85499.60	10.60	2.05E-01	1.00E-02	4.73E-04	2.01E-05	5.34E-07	1.20E-09	3.76E-10	1.01E-11
		0.50E-02	1.00E-03	3.65E-05	7.76E-07	2.00E-08	1.00E-09	1.31E-10	1.15E-11
86306.20	10.70	2.05E-01	1.00E-02	4.74E-04	2.02E-05	5.35E-07	1.20E-09	3.77E-10	1.01E-11
		0.50E-02	1.00E-03	3.65E-05	7.76E-07	2.00E-08	1.00E-09	1.31E-10	1.15E-11
86726.30	11.00	2.05E-01	1.00E-02	4.74E-04	2.02E-05	5.35E-07	1.20E-09	3.77E-10	1.01E-11
		0.50E-02	1.00E-03	3.67E-05	8.22E-07	3.33E-08	2.39E-09	2.00E-10	1.01E-11
90742.50	11.25	2.05E-01	1.00E-02	4.74E-04	2.03E-05	5.36E-07	1.31E-09	4.90E-10	2.00E-11
		0.50E-02	1.00E-03	3.68E-05	8.52E-07	3.35E-08	2.03E-09	2.40E-10	2.00E-11
92759.00	11.50	2.05E-01	1.00E-02	4.74E-04	2.03E-05	5.36E-07	1.31E-09	5.21E-10	3.10E-11
		0.50E-02	1.00E-03	3.68E-05	8.72E-07	4.25E-08	3.15E-09	2.75E-10	2.53E-11
94775.50	11.75	2.05E-01	1.00E-02	4.74E-04	2.03E-05	5.31E-07	1.30E-09	5.43E-10	3.40E-11
		0.50E-02	1.00E-03	3.70E-05	8.07E-07	4.52E-08	3.37E-09	2.97E-10	2.74E-11
96792.00	12.00	2.05E-01	1.00E-02	4.74E-04	2.03E-05	5.32E-07	1.30E-09	5.50E-10	3.55E-11
		0.50E-02	1.00E-03	3.70E-05	8.97E-07	4.63E-08	3.52E-09	3.13E-10	2.99E-11
98808.50	12.25	2.05E-01	1.00E-02	4.74E-04	2.04E-05	5.33E-07	1.40E-09	6.60E-10	4.54E-11
		0.50E-02	1.00E-03	3.73E-05	9.60E-07	5.61E-08	4.60E-09	4.20E-10	3.62E-11
100835.00	12.50	2.05E-01	1.00E-02	4.75E-04	2.04E-05	5.70E-07	1.50E-09	7.01E-10	5.30E-11
		0.50E-02	2.00E-03	3.76E-05	1.02E-06	6.33E-08	5.30E-09	4.90E-10	4.65E-11
102841.50	12.75	2.05E-01	1.00E-02	4.75E-04	2.05E-05	5.75E-07	1.60E-09	7.95E-10	5.02E-11
		0.50E-02	2.00E-03	3.77E-05	1.05E-06	6.03E-08	5.90E-09	5.40E-10	5.16E-11
104858.00	13.00	2.05E-01	1.00E-02	4.75E-04	2.05E-05	5.70E-07	1.60E-09	8.33E-10	4.10E-11
		0.50E-02	2.00E-03	3.78E-05	1.08E-06	7.20E-08	6.25E-09	5.80E-10	5.53E-11
106874.50	13.25	2.05E-01	1.00E-02	4.75E-04	2.05E-05	5.71E-07	1.60E-09	8.60E-10	6.45E-11
		0.50E-02	2.00E-03	3.78E-05	1.10E-06	7.45E-08	6.95E-09	5.15E-10	5.79E-11
108891.00	13.50	2.05E-01	1.00E-02	4.76E-04	2.05E-05	5.83E-07	1.70E-09	8.70E-10	6.62E-11
		0.50E-02	2.00E-03	3.80E-05	1.11E-06	7.63E-08	6.75E-09	6.33E-10	5.97E-11
110907.50	13.75	2.05E-01	1.00E-02	4.76E-04	2.06E-05	5.80E-07	1.75E-09	9.34E-10	7.15E-11
		0.50E-02	2.01E-03	3.90E-05	1.16E-06	8.10E-08	7.35E-09	6.90E-10	6.52E-11
112924.00	14.00	2.05E-01	1.00E-02	4.76E-04	2.06E-05	5.93E-07	1.80E-09	9.73E-10	7.53E-11
		0.60E-02	2.01E-03	3.94E-05	1.20E-06	8.02E-08	7.70E-09	7.20E-10	6.97E-11
114940.50	14.25	2.05E-01	1.00E-02	4.77E-04	2.06E-05	5.96E-07	1.85E-09	1.00E-09	7.83E-11
		0.60E-02	2.01E-03	3.96E-05	1.23E-06	8.94E-08	8.02E-09	7.59E-10	7.10E-11

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 7000° K

Wave Number (cm ⁻¹)	Photo Energy (eV)	1.0E 01	1.0E 00	1.0E -01	Density x Normal	10.0E-04	10.0E-03	10.0E-06	10.0E-07
116957.00	14.50	2.85E-01	1.09E-02	4.77E-04	2.07E-05	6.07E-07	1.85E-09	1.03E-09	8.05E-11
		8.60E-02	2.01E-03	4.01E-05	1.31E-06	1.01E-07	8.25E-09	7.82E-10	7.39E-11
118973.50	14.75	2.85E-01	1.09E-02	4.77E-04	2.08E-05	6.16E-07	1.94E-09	1.11E-09	8.87E-11
		8.60E-02	2.02E-03	4.04E-05	1.38E-06	1.09E-07	9.11E-09	8.07E-10	8.21E-11
120990.00	15.00	2.85E-01	1.09E-02	4.78E-04	2.08E-05	6.21E-07	2.00E-09	1.17E-09	9.45E-11
		8.60E-02	2.02E-03	4.06E-05	1.42E-06	1.15E-07	9.72E-09	9.27E-10	8.79E-11
123066.50	15.25	2.85E-01	1.09E-02	4.78E-04	2.08E-05	6.25E-07	2.04E-09	1.27E-09	9.86E-11
		8.60E-02	2.02E-03	4.08E-05	1.45E-06	1.19E-07	1.01E-09	9.70E-10	9.20E-11
125923.00	15.50	2.85E-01	1.09E-02	4.78E-04	2.09E-05	6.28E-07	2.07E-09	1.29E-09	1.01E-10
		8.60E-02	2.02E-03	4.09E-05	1.47E-06	1.22E-07	1.04E-09	1.00E-09	9.49E-11
127039.50	15.75	2.85E-01	1.09E-02	4.78E-04	2.09E-05	6.30E-07	2.09E-09	1.27E-09	1.07E-10
		8.60E-02	2.02E-03	4.10E-05	1.48E-06	1.24E-07	1.07E-09	1.02E-09	9.68E-11
129056.00	16.00	2.85E-01	1.09E-02	4.78E-04	2.09E-05	6.32E-07	2.11E-09	1.28E-09	1.09E-10
		8.60E-02	2.02E-03	4.11E-05	1.49E-06	1.25E-07	1.08E-09	1.04E-09	9.81E-11
131072.50	16.25	2.85E-01	1.09E-02	4.78E-04	2.09E-05	6.33E-07	2.12E-09	1.29E-09	1.08E-10
		8.60E-02	2.02E-03	4.11E-05	1.50E-06	1.26E-07	1.09E-09	1.09E-09	9.92E-11
133089.00	16.50	2.85E-01	1.09E-02	4.78E-04	2.09E-05	6.33E-07	2.12E-09	1.30E-09	1.04E-10
		8.60E-02	2.02E-03	4.11E-05	1.51E-06	1.27E-07	1.10E-09	1.05E-09	9.99E-11
135105.50	16.75	2.85E-01	1.09E-02	4.78E-04	2.09E-05	6.34E-07	2.13E-09	1.30E-09	1.07E-10
		8.60E-02	2.02E-03	4.11E-05	1.51E-06	1.27E-07	1.10E-09	1.06E-09	1.00E-10
137122.00	17.00	2.85E-01	1.09E-02	4.78E-04	2.09E-05	6.34E-07	2.13E-09	1.31E-09	1.07E-10
		8.60E-02	2.02E-03	4.12E-05	1.51E-06	1.28E-07	1.11E-09	1.06E-09	1.01E-10
139138.50	17.25	2.85E-01	1.09E-02	4.78E-04	2.09E-05	6.34E-07	2.14E-09	1.31E-09	1.07E-10
		8.60E-02	2.02E-03	4.12E-05	1.51E-06	1.28E-07	1.11E-09	1.06E-09	1.01E-10
141155.00	17.50	2.85E-01	1.09E-02	4.78E-04	2.09E-05	6.34E-07	2.14E-09	1.31E-09	1.08E-10
		8.60E-02	2.02E-03	4.12E-05	1.52E-06	1.28E-07	1.11E-09	1.06E-09	1.01E-10
143171.50	17.75	2.85E-01	1.09E-02	4.78E-04	2.09E-05	6.35E-07	2.14E-09	1.31E-09	1.06E-10
		8.60E-02	2.02E-03	4.12E-05	1.52E-06	1.28E-07	1.11E-09	1.07E-09	1.01E-10

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 8000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal									
		1.0E 01	1.0E 00	1.0E-01	10.0E-02	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07	
4839.40	0.60	2.56E-04	1.06E-05	6.37E-07	6.09E-08	6.13E-09	6.01E-10	5.63E-11	4.59E-12	4.59E-12	
2.12E-04	8.93E-06	5.89E-07	5.99E-08	6.12E-09	6.01E-10	5.63E-11	4.59E-12	4.59E-12	4.59E-12	4.59E-12	
3.08E-04	3.26E-05	1.95E-06	1.95E-06	1.40E-07	1.29E-08	1.29E-08	1.23E-09	1.17E-10	9.51E-12	9.51E-12	
6.45E-04	1.77E-05	1.21E-06	1.21E-06	1.24E-07	1.27E-08	1.27E-08	1.23E-09	1.17E-10	9.51E-12	9.51E-12	
1.52E-03	1.02E-04	5.93E-06	5.93E-06	2.97E-07	2.24E-08	2.24E-08	1.99E-09	1.80E-10	1.44E-11	1.44E-11	
5.67E-04	2.60E-05	1.92E-06	1.92E-06	2.07E-07	2.13E-08	2.13E-08	1.90E-09	1.80E-10	1.44E-11	1.44E-11	
3.60E-03	2.70E-04	1.53E-05	1.53E-05	5.75E-07	3.36E-08	3.36E-08	2.89E-09	2.62E-10	2.14E-11	2.14E-11	
7.18E-04	3.37E-05	2.65E-06	2.65E-06	2.93E-07	3.03E-08	3.03E-08	2.86E-09	2.62E-10	2.14E-11	2.14E-11	
6.63E-03	5.18E-04	2.91E-05	2.91E-05	9.59E-07	3.90E-08	3.90E-08	3.90E-09	3.45E-10	2.81E-11	2.81E-11	
8.53E-04	4.08E-05	3.34E-06	3.34E-06	3.78E-07	3.92E-08	3.92E-08	3.74E-09	3.45E-10	2.81E-11	2.81E-11	
1.03E-02	8.20E-04	4.56E-05	4.56E-05	1.40E-06	5.95E-08	5.95E-08	4.67E-09	4.23E-10	3.44E-11	3.44E-11	
9.77E-04	4.74E-05	4.01E-06	4.01E-06	4.58E-07	4.75E-08	4.75E-08	4.56E-09	4.23E-10	3.44E-11	3.44E-11	
1.55E-02	1.26E-03	6.96E-05	6.96E-05	3.00E-06	7.24E-08	7.24E-08	5.49E-09	4.95E-10	4.02E-11	4.02E-11	
1.09E-03	5.33E-05	4.63E-06	4.63E-06	5.34E-07	5.53E-08	5.53E-08	5.32E-09	4.95E-10	4.02E-11	4.02E-11	
2.10E-02	1.71E-03	9.42E-05	9.42E-05	2.60E-06	8.53E-08	8.53E-08	6.20E-09	5.56E-10	4.52E-11	4.52E-11	
1.19E-03	5.95E-05	5.14E-06	5.14E-06	5.97E-07	6.10E-08	6.10E-08	5.97E-09	5.54E-10	4.52E-11	4.52E-11	
2.92E-02	2.39E-03	1.31E-04	1.31E-04	3.49E-06	3.97E-07	3.97E-07	6.80E-09	6.04E-10	4.90E-11	4.90E-11	
1.29E-03	6.49E-05	5.77E-06	5.77E-06	6.46E-07	6.70E-08	6.70E-08	6.48E-09	6.02E-10	4.90E-11	4.90E-11	
3.81E-02	3.08E-03	1.88E-04	1.88E-04	4.35E-06	4.36E-06	4.36E-06	7.83E-09	6.50E-10	5.21E-11	5.21E-11	
2.37E-03	9.40E-05	6.85E-06	6.85E-06	7.31E-07	7.49E-08	7.49E-08	7.22E-09	6.48E-10	5.21E-11	5.21E-11	
4.71E-02	3.69E-03	1.99E-04	1.99E-04	5.13E-06	5.13E-06	5.13E-06	8.36E-09	7.09E-10	5.69E-11	5.69E-11	
4.75E-03	1.54E-04	6.61E-06	6.61E-06	8.31E-07	8.31E-07	8.31E-07	7.87E-09	7.09E-10	5.69E-11	5.69E-11	
5.99E-02	4.59E-03	2.48E-04	2.48E-04	6.25E-06	6.25E-06	6.25E-06	9.14E-09	7.65E-10	6.16E-11	6.16E-11	
7.64E-03	2.27E-04	1.06E-05	1.06E-05	9.33E-07	9.33E-07	9.33E-07	8.53E-09	7.65E-10	6.16E-11	6.16E-11	
1.15E-02	5.38E-03	2.66E-04	2.66E-04	7.20E-06	7.20E-06	7.20E-06	9.01E-09	8.21E-10	6.57E-11	6.57E-11	
1.08E-02	3.04E-04	1.32E-05	1.32E-05	1.03E-06	1.03E-06	1.03E-06	9.11E-09	8.19E-10	6.57E-11	6.57E-11	
8.52E-02	6.33E-03	3.55E-04	3.55E-04	8.35E-06	8.35E-06	8.35E-06	1.04E-08	8.67E-10	6.93E-11	6.93E-11	
1.41E-02	3.87E-04	1.48E-05	1.48E-05	1.13E-06	1.13E-06	1.13E-06	9.83E-09	8.60E-10	6.93E-11	6.93E-11	
9.32E-02	6.80E-03	3.56E-04	3.56E-04	8.91E-06	8.91E-06	8.91E-06	1.09E-08	9.08E-10	7.25E-11	7.25E-11	
1.76E-02	4.72E-04	1.70E-05	1.70E-05	1.22E-06	1.22E-06	1.22E-06	1.09E-08	9.08E-10	7.25E-11	7.25E-11	
9.98E-02	7.14E-03	3.74E-04	3.74E-04	9.31E-06	9.31E-06	9.31E-06	1.08E-08	9.46E-10	7.54E-11	7.54E-11	
2.12E-02	5.61E-04	1.91E-05	1.91E-05	1.31E-06	1.31E-06	1.31E-06	1.05E-09	9.30E-10	7.53E-11	7.53E-11	
1.05E-01	7.30E-03	3.85E-04	3.85E-04	9.59E-06	9.59E-06	9.59E-06	1.15E-07	9.75E-10	7.78E-11	7.78E-11	
2.47E-02	6.49E-04	2.13E-05	2.13E-05	1.39E-06	1.39E-06	1.39E-06	1.20E-07	9.67E-10	7.77E-11	7.77E-11	
1.10E-01	7.55E-03	3.91E-04	3.91E-04	9.75E-06	9.75E-06	9.75E-06	1.20E-07	1.00E-09	7.98E-11	7.98E-11	
2.83E-02	7.36E-04	2.34E-05	2.34E-05	1.47E-06	1.47E-06	1.47E-06	1.21E-09	9.93E-10	7.98E-11	7.98E-11	
1.13E-01	7.43E-03	3.94E-04	3.94E-04	9.87E-06	9.87E-06	9.87E-06	1.24E-09	9.93E-10	7.98E-11	7.98E-11	
3.18E-02	8.21E-04	2.54E-05	2.54E-05	1.54E-06	1.54E-06	1.54E-06	1.24E-09	1.02E-09	8.15E-11	8.15E-11	
1.17E-01	7.74E-03	3.96E-04	3.96E-04	9.98E-06	9.98E-06	9.98E-06	1.27E-09	1.02E-09	8.15E-11	8.15E-11	
3.52E-02	9.06E-04	2.74E-05	2.74E-05	1.61E-06	1.61E-06	1.61E-06	1.31E-09	1.03E-09	8.28E-11	8.28E-11	
1.20E-01	7.83E-03	3.99E-04	3.99E-04	1.01E-05	1.01E-05	1.01E-05	2.35E-07	1.29E-08	1.05E-09	1.05E-09	
1.86E-02	9.88E-04	2.94E-05	2.94E-05	1.69E-06	1.69E-06	1.69E-06	1.36E-07	1.19E-08	1.05E-09	1.05E-09	
1.24E-01	7.93E-03	4.04E-04	4.04E-04	1.04E-05	1.04E-05	1.04E-05	2.50E-07	1.35E-08	1.05E-09	1.05E-09	
4.18E-02	1.07E-03	3.14E-05	3.14E-05	1.77E-06	1.77E-06	1.77E-06	1.40E-07	1.22E-09	9.60E-11	9.60E-11	

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 9000°K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density x Normal					
		1.0E 01	1.0E 00	1.0E-01	10.0E-03	10.0E-04	10.0E-05
22794.80	2.80	1.20E-01	0.03E-03	4.00E-04	1.00E-05	2.50E-07	1.40E-08
450E-02		4.50E-02	1.14E-03	3.33E-05	1.05E-06	1.44E-07	1.25E-08
23391.40	2.90	1.32E-01	0.16E-03	4.16E-04	1.11E-05	2.77E-07	1.48E-08
4.80E-02		4.80E-02	1.22E-03	3.51E-05	1.92E-06	1.49E-07	1.29E-08
24198.00	3.00	1.36E-01	0.31E-03	4.26E-04	1.17E-05	3.00E-07	1.58E-08
5.09E-02		5.09E-02	1.29E-03	3.68E-05	1.98E-06	1.52E-07	1.31E-08
25004.60	3.10	1.41E-01	0.45E-03	4.31E-04	1.19E-05	3.09E-07	1.60E-08
5.36E-02		5.36E-02	1.35E-03	3.84E-05	2.04E-06	1.56E-07	1.34E-08
25911.20	3.20	1.45E-01	0.67E-03	4.53E-04	1.35E-05	3.64E-07	1.79E-08
5.62E-02		5.62E-02	1.42E-03	4.00E-05	2.10E-06	1.59E-07	1.36E-08
26617.80	3.30	1.50E-01	0.87E-03	4.65E-04	1.40E-05	3.84E-07	1.86E-08
5.86E-02		5.86E-02	1.48E-03	4.14E-05	2.15E-06	1.61E-07	1.38E-08
27424.40	3.40	1.56E-01	0.06E-03	4.72E-04	1.43E-05	3.90E-07	1.88E-08
6.09E-02		6.09E-02	1.53E-03	4.27E-05	2.20E-06	1.64E-07	1.39E-08
28231.00	3.50	1.63E-01	0.40E-03	4.97E-04	1.54E-05	4.35E-07	2.02E-08
6.47E-02		6.47E-02	1.63E-03	4.48E-05	2.27E-06	1.67E-07	1.41E-08
29037.60	3.60	1.70E-01	0.66E-03	5.09E-04	1.60E-05	4.49E-07	2.07E-08
6.66E-02		6.66E-02	1.72E-03	4.70E-05	2.33E-06	1.69E-07	1.42E-08
29844.20	3.70	1.79E-01	0.99E-03	5.22E-04	1.64E-05	4.56E-07	2.09E-08
7.25E-02		7.25E-02	1.82E-03	4.92E-05	2.40E-06	1.72E-07	1.44E-08
30650.80	3.80	1.87E-01	1.03E-02	5.34E-04	1.68E-05	4.67E-07	2.13E-08
7.62E-02		7.62E-02	1.90E-03	5.12E-05	2.46E-06	1.75E-07	1.45E-08
31457.40	3.90	1.94E-01	1.05E-02	5.42E-04	1.70E-05	4.72E-07	2.14E-08
7.97E-02		7.97E-02	1.99E-03	5.32E-05	2.52E-06	1.77E-07	1.46E-08
32264.00	4.00	2.02E-01	1.09E-02	5.55E-04	1.73E-05	4.77E-07	2.16E-08
8.29E-02		8.29E-02	2.07E-03	5.50E-05	2.56E-06	1.79E-07	1.47E-08
33070.60	4.10	2.09E-01	1.11E-02	5.61E-04	1.74E-05	4.80E-07	2.17E-08
8.59E-02		8.59E-02	2.14E-03	5.67E-05	2.63E-06	1.82E-07	1.49E-08
33877.20	4.20	2.18E-01	1.14E-02	5.72E-04	1.76E-05	4.84E-07	2.19E-08
8.87E-02		8.87E-02	2.21E-03	5.83E-05	2.68E-06	1.84E-07	1.50E-08
34683.80	4.30	2.26E-01	1.16E-02	5.78E-04	1.78E-05	4.88E-07	2.21E-08
9.13E-02		9.13E-02	2.28E-03	5.99E-05	2.74E-06	1.87E-07	1.52E-08
35490.40	4.40	2.36E-01	1.19E-02	5.84E-04	1.79E-05	4.92E-07	2.23E-08
9.37E-02		9.37E-02	2.33E-03	6.13E-05	2.79E-06	1.90E-07	1.54E-08
36297.00	4.50	2.46E-01	1.22E-02	5.91E-04	1.80E-05	4.95E-07	2.25E-08
9.59E-02		9.59E-02	2.39E-03	6.26E-05	2.84E-06	1.92E-07	1.56E-08
37103.60	4.60	2.57E-01	1.25E-02	5.99E-04	1.82E-05	4.99E-07	2.26E-08
9.79E-02		9.79E-02	2.44E-03	6.38E-05	2.88E-06	1.94E-07	1.57E-08
37910.20	4.70	2.67E-01	1.26E-02	6.09E-04	1.83E-05	5.01E-07	2.28E-08
9.97E-02		9.97E-02	2.48E-03	6.49E-05	2.92E-06	1.97E-07	1.59E-08
38716.80	4.80	2.78E-01	1.31E-02	6.14E-04	1.85E-05	5.04E-07	2.29E-08
1.01E-01		1.01E-01	2.52E-03	6.59E-05	2.94E-06	1.98E-07	1.60E-08
2.89E-01		2.89E-01	1.35E-02	6.21E-04	1.86E-05	5.07E-07	2.31E-08
39523.40	4.90	1.03E-01	2.54E-03	6.68E-05	2.99E-06	2.00E-07	1.61E-08

40336.00	5.00	2.99E-01	1.38E-02	6.29E-04	1.67E-05	5.10E-07	2.32E-09	1.57E-09	1.14E-10
		1.04E-01	2.59E-03	6.76E-04	2.02E-06	2.02E-07	1.62E-09	1.40E-09	1.10E-10
41136.60	5.10	3.10E-01	1.41E-02	6.37E-04	1.69E-05	5.12E-07	2.33E-09	1.50E-09	1.15E-10
		1.08E-01	2.83E-03	6.83E-05	3.05E-06	2.03E-07	1.63E-09	1.40E-09	1.11E-10
41943.20	5.20	3.10E-01	1.44E-02	6.43E-04	1.90E-05	5.14E-07	2.34E-09	1.50E-09	1.15E-10
		1.07E-01	2.67E-03	6.90E-05	3.07E-06	2.04E-07	1.64E-09	1.41E-09	1.11E-10
42749.80	5.30	3.30E-01	1.47E-02	6.52E-04	1.91E-05	5.17E-07	2.35E-09	1.50E-09	1.16E-10
		1.08E-01	2.66E-03	6.96E-05	3.09E-06	2.05E-07	1.65E-09	1.42E-09	1.12E-10
43556.40	5.40	3.30E-01	1.50E-02	6.57E-04	1.92E-05	5.19E-07	2.36E-09	1.60E-09	1.16E-10
		1.09E-01	2.70E-03	7.02E-05	3.11E-06	2.06E-07	1.66E-09	1.42E-09	1.12E-10
44363.00	5.50	3.40E-01	1.53E-02	6.63E-04	1.93E-05	5.21E-07	2.36E-09	1.60E-09	1.17E-10
		1.10E-01	2.72E-03	7.07E-05	3.13E-06	2.07E-07	1.66E-09	1.43E-09	1.13E-10
45169.60	5.60	3.50E-01	1.56E-02	6.72E-04	1.94E-05	5.22E-07	2.37E-09	1.61E-09	1.17E-10
		1.10E-01	2.74E-03	7.11E-05	3.15E-06	2.08E-07	1.67E-09	1.43E-09	1.13E-10
45976.20	5.70	3.60E-01	1.58E-02	6.76E-04	1.95E-05	5.24E-07	2.38E-09	1.61E-09	1.17E-10
		1.11E-01	2.76E-03	7.16E-05	3.16E-06	2.09E-07	1.67E-09	1.44E-09	1.13E-10
46782.80	5.80	3.71E-01	1.59E-02	6.80E-04	1.96E-05	5.25E-07	2.38E-09	1.62E-09	1.18E-10
		1.12E-01	2.78E-03	7.20E-05	3.18E-06	2.10E-07	1.68E-09	1.44E-09	1.14E-10
47589.40	5.90	3.76E-01	1.61E-02	6.84E-04	1.96E-05	5.26E-07	2.39E-09	1.62E-09	1.18E-10
		1.12E-01	2.80E-03	7.24E-05	3.19E-06	2.10E-07	1.68E-09	1.44E-09	1.14E-10
48396.00	6.00	3.80E-01	1.62E-02	6.86E-04	1.97E-05	5.27E-07	2.39E-09	1.62E-09	1.18E-10
		1.13E-01	2.81E-03	7.28E-05	3.20E-06	2.11E-07	1.69E-09	1.45E-09	1.14E-10
49202.60	6.10	3.88E-01	1.65E-02	6.93E-04	1.98E-05	5.29E-07	2.39E-09	1.63E-09	1.18E-10
		1.14E-01	2.83E-03	7.31E-05	3.21E-06	2.11E-07	1.69E-09	1.45E-09	1.14E-10
50009.20	6.20	3.92E-01	1.66E-02	6.97E-04	1.99E-05	5.30E-07	2.40E-09	1.63E-09	1.18E-10
		1.14E-01	2.84E-03	7.34E-05	3.22E-06	2.12E-07	1.69E-09	1.45E-09	1.15E-10
50815.80	6.30	3.95E-01	1.67E-02	6.99E-04	1.99E-05	5.31E-07	2.40E-09	1.63E-09	1.19E-10
		1.15E-01	2.85E-03	7.37E-05	3.23E-06	2.12E-07	1.70E-09	1.45E-09	1.15E-10
51622.40	6.40	4.00E-01	1.69E-02	7.03E-04	2.00E-05	5.32E-07	2.40E-09	1.63E-09	1.19E-10
		1.15E-01	2.86E-03	7.39E-05	3.24E-06	2.13E-07	1.70E-09	1.46E-09	1.15E-10
52429.00	6.50	4.03E-01	1.70E-02	7.06E-04	2.00E-05	5.33E-07	2.41E-09	1.63E-09	1.19E-10
		1.15E-01	2.87E-03	7.41E-05	3.25E-06	2.13E-07	1.70E-09	1.46E-09	1.15E-10
53235.60	6.60	4.05E-01	1.71E-02	7.08E-04	2.00E-05	5.33E-07	2.41E-09	1.64E-09	1.19E-10
		1.16E-01	2.88E-03	7.43E-05	3.25E-06	2.13E-07	1.70E-09	1.46E-09	1.15E-10
54042.20	6.70	4.08E-01	1.72E-02	7.10E-04	2.01E-05	5.34E-07	2.41E-09	1.64E-09	1.19E-10
		1.16E-01	2.88E-03	7.45E-05	3.26E-06	2.14E-07	1.70E-09	1.46E-09	1.15E-10
54848.80	6.80	4.10E-01	1.72E-02	7.12E-04	2.01E-05	5.34E-07	2.41E-09	1.64E-09	1.19E-10
		1.16E-01	2.89E-03	7.47E-05	3.27E-06	2.14E-07	1.71E-09	1.46E-09	1.15E-10
55655.40	6.90	4.11E-01	1.73E-02	7.13E-04	2.02E-05	5.35E-07	2.41E-09	1.64E-09	1.19E-10
		1.17E-01	2.90E-03	7.48E-05	3.27E-06	2.14E-07	1.71E-09	1.46E-09	1.15E-10
56462.00	7.00	4.12E-01	1.73E-02	7.13E-04	2.02E-05	5.35E-07	2.42E-09	1.64E-09	1.19E-10
		1.17E-01	2.90E-03	7.49E-05	3.27E-06	2.14E-07	1.71E-09	1.47E-09	1.16E-10
57268.60	7.10	4.13E-01	1.74E-02	7.16E-04	2.02E-05	5.36E-07	2.42E-09	1.64E-09	1.20E-10
		1.17E-01	2.90E-03	7.54E-05	3.28E-06	2.14E-07	1.71E-09	1.47E-09	1.16E-10
58075.20	7.20	4.16E-01	1.74E-02	7.17E-04	2.02E-05	5.36E-07	2.42E-09	1.64E-09	1.20E-10
		1.17E-01	2.90E-03	7.59E-05	3.29E-06	2.15E-07	1.71E-09	1.47E-09	1.16E-10
58881.80	7.30	4.21E-01	1.75E-02	7.18E-04	2.02E-05	5.36E-07	2.42E-09	1.64E-09	1.20E-10
		1.17E-01	2.90E-03	7.64E-05	3.30E-06	2.15E-07	1.71E-09	1.47E-09	1.16E-10
59688.40	7.40	4.24E-01	1.75E-02	7.19E-04	2.03E-05	5.37E-07	2.42E-09	1.64E-09	1.20E-10
		1.20E-01	3.06E-03	7.69E-05	3.30E-06	2.15E-07	1.71E-09	1.47E-09	1.14E-10

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 6000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density x Normal						
		1.0E 01	1.0E 00	1.0E 01	10.0E-03	10.0E-04	10.0E-05	10.0E-06
60495.00	7.50	4.27E-01	1.76E-02	7.21E-04	2.03E-05	5.37E-07	2.42E-08	1.64E-09
61301.60	7.60	1.31E-01	3.10E-03	7.73E-05	3.31E-06	2.15E-07	1.71E-08	1.47E-09
62108.20	7.70	4.32E-01	1.33E-03	7.72E-05	3.32E-06	2.15E-07	1.71E-08	1.47E-09
62914.80	7.80	1.35E-01	3.16E-03	7.81E-05	3.32E-06	2.15E-07	1.72E-08	1.47E-09
63721.40	7.90	4.36E-01	1.37E-03	7.84E-05	3.33E-06	2.16E-07	1.72E-08	1.47E-09
64528.00	8.00	1.39E-01	3.22E-03	7.88E-05	3.33E-06	2.16E-07	1.72E-08	1.47E-09
65334.60	8.10	4.40E-01	1.38E-03	7.91E-05	3.33E-06	2.16E-07	1.72E-08	1.47E-09
66141.20	8.20	1.43E-01	3.27E-03	7.94E-05	3.34E-06	2.16E-07	1.72E-08	1.47E-09
66947.80	8.30	4.42E-01	1.39E-03	7.96E-05	3.34E-06	2.16E-07	1.72E-08	1.47E-09
67754.40	8.40	1.44E-01	3.29E-03	7.99E-05	3.35E-06	2.16E-07	1.72E-08	1.47E-09
68561.00	8.50	4.45E-01	1.40E-03	8.01E-05	3.35E-06	2.16E-07	1.72E-08	1.47E-09
69367.60	8.60	1.47E-01	3.33E-03	8.03E-05	3.35E-06	2.16E-07	1.72E-08	1.47E-09
70174.20	8.70	4.46E-01	1.41E-03	8.07E-05	3.36E-06	2.16E-07	1.72E-08	1.47E-09
70980.80	8.80	1.51E-01	3.38E-03	8.08E-05	3.36E-06	2.16E-07	1.72E-08	1.47E-09
71787.40	8.90	4.53E-01	1.42E-03	8.10E-05	3.36E-06	2.16E-07	1.72E-08	1.47E-09
72594.00	9.00	1.53E-01	3.41E-03	8.11E-05	3.36E-06	2.16E-07	1.72E-08	1.47E-09
73400.60	9.10	4.54E-01	1.43E-03	8.12E-05	3.36E-06	2.16E-07	1.72E-08	1.47E-09
74207.20	9.20	1.54E-01	3.42E-03	8.13E-05	3.36E-06	2.16E-07	1.72E-08	1.47E-09
75013.80	9.30	4.55E-01	1.43E-03	8.13E-05	3.36E-06	2.16E-07	1.72E-08	1.47E-09
75820.40	9.40	1.54E-01	3.43E-03	8.13E-05	3.36E-06	2.16E-07	1.72E-08	1.47E-09
76627.00	9.50	4.56E-01	1.44E-03	8.14E-05	3.36E-06	2.16E-07	1.72E-08	1.47E-09
77433.60	9.60	1.55E-01	3.44E-03	8.14E-05	3.36E-06	2.16E-07	1.72E-08	1.47E-09

78240.20	9.70	4.57E-01	1.04E-02	7.52E-04	2.10E-05	5.46E-07	2.44E-09	1.69E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.16E-07	1.72E-09	1.47E-09	1.16E-10
79046.80	9.80	4.50E-01	1.04E-02	7.53E-04	2.10E-05	5.40E-07	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.16E-07	1.72E-09	1.47E-09	1.16E-10
79853.40	9.90	4.50E-01	1.04E-02	7.53E-04	2.10E-05	5.47E-07	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.16E-07	1.72E-09	1.47E-09	1.16E-10
80660.00	10.00	4.50E-01	1.04E-02	7.57E-04	2.11E-05	5.47E-07	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
81466.60	10.10	4.50E-01	1.04E-02	7.59E-04	2.11E-05	5.47E-07	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
82273.20	10.20	4.50E-01	1.04E-02	7.60E-04	2.12E-05	5.48E-07	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
83079.80	10.30	4.50E-01	1.04E-02	7.62E-04	2.12E-05	5.48E-07	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
83686.40	10.40	4.50E-01	1.04E-02	7.64E-04	2.12E-05	5.49E-07	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
84493.00	10.50	4.50E-01	1.04E-02	7.66E-04	2.13E-05	5.49E-07	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
85499.60	10.60	4.51E-01	1.07E-02	7.68E-04	2.13E-05	5.50E-07	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
86306.20	10.70	4.52E-01	1.08E-02	7.71E-04	2.14E-05	5.51E-07	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
8726.00	11.00	4.62E-01	1.08E-02	7.76E-04	2.21E-05	6.31E-07	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
98742.50	11.25	4.62E-01	1.08E-02	7.80E-04	2.22E-05	6.31E-07	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
92759.00	11.50	4.62E-01	1.08E-02	7.82E-04	2.30E-05	7.26E-07	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
94775.50	11.75	4.62E-01	1.08E-02	7.84E-04	2.33E-05	7.55E-07	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
96792.00	12.00	4.62E-01	1.08E-02	7.85E-04	2.35E-05	7.77E-07	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
98808.50	12.25	4.62E-01	1.08E-02	7.93E-04	2.47E-05	9.07E-07	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
100835.00	12.50	4.62E-01	1.08E-02	7.99E-04	2.56E-05	1.00E-06	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
102841.50	12.75	4.62E-01	1.08E-02	8.04E-04	2.63E-05	1.07E-06	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
104858.00	13.00	4.62E-01	1.08E-02	8.07E-04	2.68E-05	1.13E-06	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
106874.50	13.25	4.62E-01	1.08E-02	8.10E-04	2.72E-05	1.17E-06	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
108891.00	13.50	4.62E-01	1.08E-02	8.12E-04	2.80E-05	1.20E-06	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
110907.50	13.75	4.62E-01	1.08E-02	8.23E-04	2.86E-05	1.26E-06	2.44E-09	1.65E-09	1.20E-10
		1.55E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
112904.00	14.00	4.63E-01	1.08E-02	8.27E-04	2.92E-05	1.32E-06	2.44E-09	1.65E-09	1.20E-10
		1.57E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10
114940.00	14.25	4.64E-01	1.08E-02	8.31E-04	2.94E-05	1.36E-06	2.44E-09	1.65E-09	1.20E-10
		1.57E-01	3.44E-03	8.14E-05	3.37E-06	2.17E-07	1.72E-09	1.47E-09	1.16E-10

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 8000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal				
		1.0E 01	1.0E 00	1.0E-01	10.0E-03	10.0E-04
110067.00	14.50	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
113073.50	14.75	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
120090.00	15.00	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
123006.50	15.25	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
126023.00	15.50	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
129039.50	15.75	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
132056.00	16.00	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
135072.50	16.25	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
138089.00	16.50	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
141105.50	16.75	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
144122.00	17.00	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
147138.50	17.25	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
150155.00	17.50	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
153171.50	17.75	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
156188.00	18.00	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
159204.50	18.25	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
162221.00	18.50	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
165237.50	18.75	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
168254.00	19.00	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
171270.50	19.25	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
174287.00	19.50	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
177303.50	19.75	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06
180320.00	20.00	4.64E-01	1.92E-02	8.41E-04	3.09E-05	1.51E-06
		1.97E-01	3.87E-03	1.51E-04	3.09E-05	1.51E-06

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 9000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal									
		1.0E 01	1.0E 00	1.0E 01	1.0E 00	1.0E 01	1.0E 00	1.0E 01	1.0E 00	1.0E 01	1.0E 00
4039.60	0.60	7.25E-04	4.41E-05	4.07E-06	4.21E-07	4.14E-08	3.86E-09	3.09E-10	1.50E-11	1.50E-11	1.50E-11
693E-04		6.93E-04	4.48E-05	4.04E-06	4.21E-07	4.14E-08	3.86E-09	3.09E-10	1.50E-11	1.50E-11	1.50E-11
5646.20	0.70	1.61E-03	1.07E-04	9.62E-06	9.10E-07	8.66E-08	8.00E-09	6.40E-10	3.27E-11	3.27E-11	3.27E-11
6452.80	0.80	1.35E-03	9.04E-05	9.12E-06	8.03E-07	8.59E-08	8.00E-09	6.40E-10	3.27E-11	3.27E-11	3.27E-11
3.30E-03		2.30E-04	2.30E-05	1.74E-05	1.52E-06	1.44E-07	1.34E-08	1.01E-09	5.05E-11	5.05E-11	5.05E-11
1.92E-03		1.37E-04	1.37E-05	1.46E-05	1.46E-06	1.43E-07	1.34E-08	1.01E-09	5.05E-11	5.05E-11	5.05E-11
7259.40	0.90	7.04E-03	4.81E-04	2.92E-05	2.21E-06	2.85E-07	1.89E-08	1.46E-09	7.32E-11	7.32E-11	7.32E-11
2.47E-03		2.47E-04	1.83E-05	2.02E-05	2.09E-06	2.04E-07	1.89E-08	1.46E-09	7.32E-11	7.32E-11	7.32E-11
8066.00	1.00	1.23E-02	8.35E-04	4.41E-05	2.94E-06	2.66E-07	2.45E-08	1.90E-09	9.62E-11	9.62E-11	9.62E-11
2.97E-03		2.97E-04	2.28E-05	2.50E-05	2.70E-06	2.64E-07	2.43E-08	1.90E-09	9.62E-11	9.62E-11	9.62E-11
0A72.60	1.10	1.87E-02	1.27E-03	6.13E-05	3.69E-06	3.29E-07	2.99E-08	2.33E-09	1.10E-10	1.10E-10	1.10E-10
3.43E-03		3.43E-04	2.71E-05	3.13E-05	3.30E-06	3.21E-07	2.90E-08	2.33E-09	1.10E-10	1.10E-10	1.10E-10
9679.20	1.20	2.75E-02	1.85E-03	8.30E-05	4.66E-06	3.81E-07	3.49E-08	2.73E-09	1.30E-10	1.30E-10	1.30E-10
3.84E-03		3.84E-04	3.11E-05	3.63E-05	3.85E-06	3.75E-07	3.48E-08	2.73E-09	1.30E-10	1.30E-10	1.30E-10
10485.80	1.30	3.71E-02	2.49E-03	1.05E-04	5.17E-06	4.29E-07	3.92E-08	3.07E-09	1.55E-10	1.55E-10	1.55E-10
4.26E-03		4.26E-04	3.95E-05	4.08E-05	4.31E-06	4.21E-07	3.91E-08	3.07E-09	1.55E-10	1.55E-10	1.55E-10
11292.40	1.40	5.12E-02	3.43E-03	1.37E-04	6.08E-06	4.69E-07	4.25E-08	3.34E-09	1.69E-10	1.69E-10	1.69E-10
4.62E-03		4.62E-04	3.95E-05	4.57E-05	4.87E-06	4.57E-07	4.24E-08	3.34E-09	1.69E-10	1.69E-10	1.69E-10
12099.00	1.50	6.66E-02	4.40E-03	1.70E-04	6.97E-06	5.22E-07	4.72E-08	3.70E-09	1.80E-10	1.80E-10	1.80E-10
6.66E-02		6.66E-04	6.15E-05	5.13E-05	5.39E-06	5.27E-07	4.78E-08	3.70E-09	1.80E-10	1.80E-10	1.80E-10
12905.60	1.60	8.10E-02	5.20E-03	2.00E-04	7.81E-06	5.73E-07	5.15E-08	4.02E-09	1.94E-10	1.94E-10	1.94E-10
8.10E-02		8.10E-04	5.63E-05	5.76E-05	5.92E-06	5.54E-07	5.14E-08	4.02E-09	1.94E-10	1.94E-10	1.94E-10
13712.20	1.70	1.04E-01	6.59E-03	2.42E-04	8.78E-06	6.22E-07	5.55E-08	4.33E-09	2.12E-10	2.12E-10	2.12E-10
1.04E-01		1.04E-02	6.80E-04	6.39E-05	6.42E-06	6.22E-07	5.55E-08	4.33E-09	2.12E-10	2.12E-10	2.12E-10
14510.80	1.80	1.24E-01	7.73E-03	2.80E-04	9.95E-06	6.66E-07	5.91E-08	4.61E-09	2.26E-10	2.26E-10	2.26E-10
1.24E-01		1.24E-02	8.03E-04	7.00E-05	6.88E-06	6.38E-07	5.80E-08	4.61E-09	2.26E-10	2.26E-10	2.26E-10
15125.40	1.90	1.48E-01	9.15E-03	3.25E-04	1.06E-05	7.06E-07	6.23E-08	4.80E-09	2.38E-10	2.38E-10	2.38E-10
1.48E-01		1.48E-02	9.32E-04	7.99E-05	7.30E-06	6.74E-07	6.20E-08	4.80E-09	2.38E-10	2.38E-10	2.38E-10
16132.00	2.00	1.62E-01	9.93E-03	3.50E-04	1.12E-05	7.41E-07	6.51E-08	5.00E-09	2.49E-10	2.49E-10	2.49E-10
1.62E-01		1.62E-02	1.06E-03	9.10E-05	7.69E-06	7.06E-07	6.40E-08	5.00E-09	2.49E-10	2.49E-10	2.49E-10
16930.60	2.10	1.74E-01	1.05E-02	3.68E-04	1.18E-05	7.72E-07	6.77E-08	5.27E-09	2.60E-10	2.60E-10	2.60E-10
1.74E-01		1.74E-02	1.26E-03	8.75E-05	8.06E-06	7.35E-07	6.74E-08	5.27E-09	2.60E-10	2.60E-10	2.60E-10
17745.20	2.20	1.83E-01	1.09E-02	3.62E-04	1.22E-05	7.99E-07	6.99E-08	5.45E-09	2.68E-10	2.68E-10	2.68E-10
1.83E-01		1.83E-02	1.34E-03	9.38E-05	8.40E-06	7.61E-07	6.96E-08	5.45E-09	2.68E-10	2.68E-10	2.68E-10
18551.80	2.30	3.62E-02	1.17E-02	3.92E-04	1.26E-05	8.22E-07	7.18E-08	5.59E-09	2.76E-10	2.76E-10	2.76E-10
1.90E-01		1.90E-02	1.47E-03	9.82E-05	8.70E-06	7.84E-07	7.15E-08	5.59E-09	2.76E-10	2.76E-10	2.76E-10
19350.40	2.40	1.96E-01	1.13E-02	3.98E-04	1.29E-05	8.43E-07	7.34E-08	5.71E-09	2.82E-10	2.82E-10	2.82E-10
1.96E-01		1.96E-02	1.65E-03	1.03E-04	8.97E-06	8.03E-07	7.31E-08	5.71E-09	2.82E-10	2.82E-10	2.82E-10
20165.00	2.50	2.00E-01	1.15E-02	4.04E-04	1.31E-05	8.59E-07	7.47E-08	5.81E-09	2.87E-10	2.87E-10	2.87E-10
2.00E-01		2.00E-02	1.75E-03	1.09E-04	9.20E-06	8.20E-07	7.44E-08	5.81E-09	2.87E-10	2.87E-10	2.87E-10
20971.60	2.60	2.04E-01	1.16E-02	4.10E-04	1.35E-05	8.85E-07	7.68E-08	5.90E-09	2.91E-10	2.91E-10	2.91E-10
2.04E-01		2.04E-02	1.86E-03	1.14E-04	9.52E-06	8.44E-07	7.64E-08	5.89E-09	2.91E-10	2.91E-10	2.91E-10
21770.20	2.70	2.11E-01	1.18E-02	4.22E-04	1.41E-05	9.19E-07	7.90E-08	6.05E-09	2.98E-10	2.98E-10	2.98E-10
2.11E-01		2.11E-02	2.02E-03	1.20E-04	9.86E-06	8.70E-07	7.83E-08	6.04E-09	2.98E-10	2.98E-10	2.98E-10

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR 900° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal					10.0E-06	10.0E-07
		1.0E-01	1.0E-02	1.0E-01	1.3E-03	10.0E-04		
22584.80	2.80	2.17E-01	1.20E-02	4.30E-04	1.45E-05	9.40E-07	6.21E-09	3.00E-10
23391.40	2.90	6.56E-02	2.15E-03	1.25E-04	1.02E-05	8.90E-07	6.20E-09	3.00E-10
24198.00	3.00	2.23E-01	1.23E-02	4.45E-04	1.53E-05	9.79E-07	6.34E-09	3.14E-10
25004.60	3.10	7.02E-02	2.27E-03	1.30E-04	1.05E-05	9.15E-07	6.34E-09	3.14E-10
25811.20	3.20	2.29E-01	1.26E-02	4.63E-04	1.59E-05	1.02E-06	6.50E-09	3.21E-10
26617.80	3.30	7.47E-02	2.40E-03	1.34E-04	1.07E-05	9.36E-07	6.47E-09	3.20E-10
27424.40	3.40	2.36E-01	1.28E-02	4.73E-04	1.63E-05	1.04E-06	6.61E-09	3.26E-10
28231.00	3.50	7.90E-02	2.51E-03	1.39E-04	1.10E-05	9.54E-07	6.58E-09	3.26E-10
29037.60	3.60	2.45E-01	1.33E-02	5.11E-04	1.79E-05	1.09E-06	6.74E-09	3.32E-10
29844.20	3.70	8.31E-02	2.62E-03	1.43E-04	1.12E-05	9.70E-07	6.80E-09	3.31E-10
30650.80	3.80	2.53E-01	1.36E-02	5.31E-04	1.86E-05	1.12E-06	6.84E-09	3.36E-10
31457.40	3.90	8.71E-02	2.73E-03	1.47E-04	1.14E-05	9.84E-07	6.77E-09	3.36E-10
32264.00	4.00	2.62E-01	1.41E-02	5.43E-04	1.89E-05	1.16E-06	6.92E-09	3.40E-10
33070.60	4.10	9.10E-02	2.83E-03	1.50E-04	1.16E-05	9.90E-07	6.89E-09	3.40E-10
33877.20	4.20	2.76E-01	1.49E-02	5.63E-04	2.03E-05	1.19E-06	7.00E-09	3.44E-10
34683.80	4.30	9.73E-02	2.99E-03	1.55E-04	1.18E-05	1.21E-06	6.92E-09	3.43E-10
35490.40	4.40	2.88E-01	1.54E-02	6.03E-04	2.09E-05	1.21E-06	7.07E-09	3.47E-10
36297.00	4.50	1.04E-01	3.17E-03	1.61E-04	1.20E-05	1.22E-06	6.97E-09	3.46E-10
37103.60	4.60	3.03E-01	1.60E-02	6.22E-04	2.14E-05	1.23E-06	7.12E-09	3.49E-10
37910.20	4.70	1.11E-01	3.34E-03	1.64E-04	1.22E-05	1.23E-06	7.02E-09	3.48E-10
38716.80	4.80	3.17E-01	1.66E-02	6.41E-04	2.18E-05	1.24E-06	7.17E-09	3.52E-10
39523.40	4.90	1.17E-01	3.51E-03	1.71E-04	2.24E-05	1.25E-06	7.07E-09	3.51E-10
		3.28E-01	1.70E-02	6.54E-04	2.28E-05	1.25E-06	7.21E-09	3.54E-10
		1.23E-01	3.67E-03	1.76E-04	2.28E-05	1.25E-06	7.12E-09	3.53E-10
		3.44E-01	1.76E-02	6.73E-04	2.26E-05	1.26E-06	7.26E-09	3.56E-10
		1.29E-01	3.82E-03	1.81E-04	2.26E-05	1.26E-06	7.10E-09	3.55E-10
		3.54E-01	1.79E-02	6.81E-04	2.28E-05	1.27E-06	7.31E-09	3.59E-10
		1.35E-01	3.97E-03	1.84E-04	2.30E-05	1.27E-06	7.42E-09	3.58E-10
		3.60E-01	1.85E-02	6.97E-04	2.32E-05	1.29E-06	7.21E-09	3.61E-10
		1.40E-01	4.11E-03	1.91E-04	2.33E-05	1.30E-06	7.27E-09	3.60E-10
		3.79E-01	1.80E-02	7.05E-04	2.35E-05	1.30E-06	7.46E-09	3.63E-10
		1.45E-01	4.24E-03	1.95E-04	2.35E-05	1.30E-06	7.36E-09	3.62E-10
		3.91E-01	1.91E-02	7.13E-04	2.36E-05	1.32E-06	7.55E-09	3.64E-10
		1.50E-01	4.36E-03	2.00E-04	2.37E-05	1.31E-06	7.45E-09	3.67E-10
		4.03E-01	1.94E-02	7.21E-04	2.40E-05	1.33E-06	7.63E-09	3.72E-10
		1.54E-01	4.48E-03	2.04E-04	2.42E-05	1.33E-06	7.53E-09	3.71E-10
		4.16E-01	1.98E-02	7.29E-04	2.42E-05	1.34E-06	7.70E-09	3.76E-10
		1.58E-01	4.59E-03	2.07E-04	2.42E-05	1.34E-06	7.60E-09	3.75E-10
		4.29E-01	2.01E-02	7.37E-04	2.44E-05	1.35E-06	7.76E-09	3.79E-10
		1.62E-01	4.68E-03	2.11E-04	2.45E-05	1.35E-06	7.67E-09	3.78E-10
		4.42E-01	2.05E-02	7.45E-04	2.46E-05	1.36E-06	7.82E-09	3.82E-10
		1.63E-01	4.78E-03	2.14E-04	2.46E-05	1.36E-06	7.73E-09	3.81E-10
		4.55E-01	2.09E-02	7.52E-04	2.46E-05	1.37E-06	7.88E-09	3.85E-10
		1.69E-01	4.86E-03	2.17E-04	2.46E-05	1.37E-06	7.78E-09	3.84E-10

40330.00	5.00	4.67E-01	2.12E-02	7.59E-04	2.50E-05	1.30E-06	1.07E-07	2.93E-09	3.80E-10
		1.72E-01	4.94E-03	2.19E-04	1.47E-05	1.10E-06	1.02E-07	7.83E-09	3.87E-10
41136.60	5.10	4.80E-01	2.15E-02	7.67E-04	2.52E-05	1.39E-06	1.08E-07	7.97E-09	3.90E-10
		1.74E-01	5.01E-03	2.22E-04	1.40E-05	1.10E-06	1.03E-07	7.80E-09	3.89E-10
41943.20	5.20	4.90E-01	2.18E-02	7.72E-04	2.53E-05	1.40E-06	1.06E-07	8.82E-09	3.93E-10
		1.77E-01	5.08E-03	2.24E-04	1.49E-05	1.19E-06	1.03E-07	7.92E-09	3.91E-10
42749.80	5.30	5.03E-01	2.22E-02	7.80E-04	2.55E-05	1.41E-06	1.09E-07	8.05E-09	3.94E-10
		1.79E-01	5.14E-03	2.26E-04	1.50E-05	1.20E-06	1.04E-07	7.95E-09	3.93E-10
43556.40	5.40	5.13E-01	2.24E-02	7.85E-04	2.56E-05	1.41E-06	1.09E-07	8.09E-09	3.96E-10
		1.81E-01	5.20E-03	2.28E-04	1.51E-05	1.20E-06	1.04E-07	7.99E-09	3.95E-10
44363.00	5.50	5.25E-01	2.27E-02	7.92E-04	2.58E-05	1.42E-06	1.10E-07	8.12E-09	3.99E-10
		1.83E-01	5.25E-03	2.30E-04	1.52E-05	1.21E-06	1.05E-07	8.02E-09	3.97E-10
45169.60	5.60	5.36E-01	2.30E-02	7.98E-04	2.59E-05	1.42E-06	1.10E-07	8.15E-09	3.99E-10
		1.85E-01	5.30E-03	2.32E-04	1.53E-05	1.21E-06	1.05E-07	8.05E-09	3.98E-10
45976.20	5.70	5.44E-01	2.33E-02	8.02E-04	2.60E-05	1.43E-06	1.10E-07	8.17E-09	4.01E-10
		1.87E-01	5.35E-03	2.33E-04	1.53E-05	1.22E-06	1.06E-07	8.08E-09	4.00E-10
46782.80	5.80	5.52E-01	2.35E-02	8.06E-04	2.61E-05	1.43E-06	1.11E-07	8.20E-09	4.02E-10
		1.89E-01	5.40E-03	2.35E-04	1.54E-05	1.22E-06	1.06E-07	8.18E-09	4.01E-10
47589.40	5.90	5.58E-01	2.36E-02	8.10E-04	2.62E-05	1.44E-06	1.11E-07	8.22E-09	4.03E-10
		1.91E-01	5.44E-03	2.34E-04	1.55E-05	1.23E-06	1.06E-07	8.12E-09	4.02E-10
48396.00	6.00	5.63E-01	2.38E-02	8.13E-04	2.63E-05	1.44E-06	1.11E-07	8.24E-09	4.04E-10
		1.92E-01	5.48E-03	2.37E-04	1.55E-05	1.23E-06	1.06E-07	8.14E-09	4.03E-10
49202.60	6.10	5.74E-01	2.41E-02	8.19E-04	2.64E-05	1.44E-06	1.11E-07	8.26E-09	4.05E-10
		1.94E-01	5.52E-03	2.39E-04	1.56E-05	1.23E-06	1.07E-07	8.16E-09	4.04E-10
50009.20	6.20	5.80E-01	2.42E-02	8.23E-04	2.65E-05	1.45E-06	1.12E-07	8.28E-09	4.06E-10
		1.95E-01	5.56E-03	2.49E-04	1.56E-05	1.24E-06	1.07E-07	8.18E-09	4.05E-10
50815.80	6.30	5.84E-01	2.44E-02	8.26E-04	2.65E-05	1.45E-06	1.12E-07	8.29E-09	4.07E-10
		1.94E-01	5.59E-03	2.41E-04	1.57E-05	1.24E-06	1.07E-07	8.19E-09	4.06E-10
51622.40	6.40	5.91E-01	2.46E-02	8.30E-04	2.66E-05	1.45E-06	1.12E-07	8.31E-09	4.08E-10
		1.97E-01	5.62E-03	2.42E-04	1.57E-05	1.24E-06	1.07E-07	8.21E-09	4.07E-10
52429.00	6.50	5.96E-01	2.47E-02	8.33E-04	2.67E-05	1.46E-06	1.12E-07	8.32E-09	4.09E-10
		1.98E-01	5.64E-03	2.43E-04	1.58E-05	1.24E-06	1.07E-07	8.22E-09	4.07E-10
53235.60	6.60	5.99E-01	2.48E-02	8.36E-04	2.67E-05	1.46E-06	1.12E-07	8.33E-09	4.09E-10
		1.99E-01	5.67E-03	2.43E-04	1.58E-05	1.25E-06	1.08E-07	8.23E-09	4.08E-10
54042.20	6.70	6.04E-01	2.50E-02	8.39E-04	2.68E-05	1.46E-06	1.13E-07	8.34E-09	4.10E-10
		2.00E-01	5.69E-03	2.44E-04	1.58E-05	1.25E-06	1.08E-07	8.24E-09	4.09E-10
54848.80	6.80	6.07E-01	2.51E-02	8.41E-04	2.68E-05	1.46E-06	1.13E-07	8.35E-09	4.10E-10
		2.01E-01	5.71E-03	2.45E-04	1.58E-05	1.25E-06	1.08E-07	8.25E-09	4.09E-10
55655.40	6.90	6.09E-01	2.51E-02	8.43E-04	2.68E-05	1.46E-06	1.13E-07	8.36E-09	4.10E-10
		2.02E-01	5.73E-03	2.45E-04	1.59E-05	1.25E-06	1.08E-07	8.26E-09	4.09E-10
56462.00	7.00	6.11E-01	2.52E-02	8.45E-04	2.69E-05	1.47E-06	1.13E-07	8.37E-09	4.11E-10
		2.02E-01	5.74E-03	2.46E-04	1.59E-05	1.25E-06	1.08E-07	8.27E-09	4.10E-10
57268.60	7.10	6.15E-01	2.53E-02	8.48E-04	2.70E-05	1.47E-06	1.13E-07	8.38E-09	4.11E-10
		2.05E-01	5.79E-03	2.47E-04	1.59E-05	1.25E-06	1.08E-07	8.26E-09	4.10E-10
58075.20	7.20	6.19E-01	2.54E-02	8.49E-04	2.70E-05	1.47E-06	1.13E-07	8.38E-09	4.12E-10
		2.09E-01	5.84E-03	2.48E-04	1.59E-05	1.26E-06	1.08E-07	8.29E-09	4.11E-10
58881.80	7.30	6.23E-01	2.55E-02	8.51E-04	2.71E-05	1.47E-06	1.13E-07	8.39E-09	4.12E-10
		2.12E-01	5.89E-03	2.48E-04	1.60E-05	1.26E-06	1.08E-07	8.29E-09	4.11E-10
59688.40	7.40	6.26E-01	2.56E-02	8.53E-04	2.71E-05	1.47E-06	1.13E-07	8.40E-09	4.12E-10
		2.15E-01	5.93E-03	2.49E-04	1.60E-05	1.26E-06	1.08E-07	8.38E-09	4.11E-10

PARTIAL PLANK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 9000 K

Wave Number (cm ⁻¹)	Photon Energy (eV)	1.0E-01	1.0E-00	Density x Mean	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
60495.00	7.50	6.30E-01	2.56E-02	6.53E-04	2.71E-05	1.47E-06	1.13E-07	8.40E-09	4.13E-10
61301.60	7.60	2.17E-01	3.97E-03	2.50E-04	1.48E-05	1.24E-06	1.09E-07	8.30E-09	4.11E-10
62108.20	7.70	6.33E-01	2.57E-02	8.57E-04	2.72E-05	1.47E-06	1.13E-07	8.41E-09	4.13E-10
62914.80	7.80	2.50E-01	6.01E-03	2.50E-04	1.60E-05	1.24E-06	1.09E-07	8.31E-09	4.12E-10
63721.40	7.90	6.36E-01	2.58E-02	8.59E-04	2.72E-05	1.47E-06	1.13E-07	8.41E-09	4.13E-10
64528.00	8.00	2.23E-01	6.05E-03	2.51E-04	1.60E-05	1.24E-06	1.09E-07	8.31E-09	4.12E-10
65334.60	8.10	6.40E-01	2.59E-02	8.61E-04	2.72E-05	1.47E-06	1.13E-07	8.41E-09	4.13E-10
66141.20	8.20	2.25E-01	6.08E-03	2.52E-04	1.61E-05	1.24E-06	1.09E-07	8.32E-09	4.13E-10
66947.80	8.30	6.43E-01	2.60E-02	8.63E-04	2.73E-05	1.48E-06	1.14E-07	8.42E-09	4.14E-10
67754.40	8.40	2.28E-01	6.11E-03	2.53E-04	1.61E-05	1.24E-06	1.09E-07	8.32E-09	4.13E-10
68561.00	8.50	6.46E-01	2.61E-02	8.65E-04	2.73E-05	1.48E-06	1.14E-07	8.42E-09	4.14E-10
69367.60	8.60	2.30E-01	6.14E-03	2.53E-04	1.61E-05	1.24E-06	1.09E-07	8.32E-09	4.13E-10
70174.20	8.70	6.49E-01	2.62E-02	8.68E-04	2.73E-05	1.48E-06	1.14E-07	8.42E-09	4.14E-10
70980.80	8.80	2.32E-01	6.17E-03	2.53E-04	1.61E-05	1.24E-06	1.09E-07	8.33E-09	4.13E-10
71787.40	8.90	6.52E-01	2.62E-02	8.70E-04	2.74E-05	1.48E-06	1.14E-07	8.43E-09	4.14E-10
72594.00	9.00	2.34E-01	6.20E-03	2.53E-04	1.61E-05	1.24E-06	1.09E-07	8.33E-09	4.13E-10
73400.60	9.10	6.54E-01	2.63E-02	8.72E-04	2.74E-05	1.48E-06	1.14E-07	8.43E-09	4.14E-10
74207.20	9.20	2.35E-01	6.23E-03	2.54E-04	1.61E-05	1.24E-06	1.09E-07	8.33E-09	4.13E-10
75013.80	9.30	6.57E-01	2.64E-02	8.74E-04	2.74E-05	1.48E-06	1.14E-07	8.43E-09	4.14E-10
75820.40	9.40	2.37E-01	6.25E-03	2.54E-04	1.61E-05	1.24E-06	1.09E-07	8.33E-09	4.13E-10
76627.00	9.50	6.59E-01	2.65E-02	8.76E-04	2.75E-05	1.48E-06	1.14E-07	8.43E-09	4.14E-10
77433.60	9.60	2.39E-01	6.27E-03	2.54E-04	1.61E-05	1.24E-06	1.09E-07	8.33E-09	4.13E-10
78240.20	9.70	6.62E-01	2.66E-02	8.78E-04	2.75E-05	1.48E-06	1.14E-07	8.44E-09	4.14E-10
79046.80	9.80	2.40E-01	6.29E-03	2.55E-04	1.61E-05	1.24E-06	1.09E-07	8.34E-09	4.13E-10
79853.40	9.90	6.64E-01	2.67E-02	8.81E-04	2.75E-05	1.48E-06	1.14E-07	8.44E-09	4.14E-10
80660.00	10.00	2.41E-01	6.31E-03	2.55E-04	1.61E-05	1.24E-06	1.09E-07	8.34E-09	4.13E-10
81466.60	10.10	6.67E-01	2.68E-02	8.84E-04	2.76E-05	1.48E-06	1.14E-07	8.44E-09	4.14E-10
82273.20	10.20	2.43E-01	6.32E-03	2.55E-04	1.61E-05	1.24E-06	1.09E-07	8.34E-09	4.13E-10
83079.80	10.30	6.69E-01	2.69E-02	8.86E-04	2.76E-05	1.48E-06	1.14E-07	8.44E-09	4.14E-10
83886.40	10.40	2.44E-01	6.34E-03	2.55E-04	1.62E-05	1.24E-06	1.09E-07	8.34E-09	4.13E-10
84693.00	10.50	6.71E-01	2.69E-02	8.89E-04	2.76E-05	1.48E-06	1.14E-07	8.44E-09	4.14E-10
85499.60	10.60	2.45E-01	6.35E-03	2.55E-04	1.62E-05	1.24E-06	1.09E-07	8.34E-09	4.13E-10
86306.20	10.70	6.73E-01	2.70E-02	8.92E-04	2.77E-05	1.48E-06	1.14E-07	8.44E-09	4.14E-10
87112.80	10.80	2.45E-01	6.36E-03	2.55E-04	1.62E-05	1.24E-06	1.09E-07	8.34E-09	4.13E-10
87919.40	10.90	6.75E-01	2.71E-02	8.94E-04	2.77E-05	1.48E-06	1.14E-07	8.44E-09	4.14E-10
88726.00	11.00	2.46E-01	6.37E-03	2.56E-04	1.62E-05	1.24E-06	1.09E-07	8.34E-09	4.13E-10
89532.60	11.10	6.77E-01	2.72E-02	8.97E-04	2.78E-05	1.49E-06	1.14E-07	8.44E-09	4.14E-10
90339.20	11.20	2.46E-01	6.38E-03	2.56E-04	1.62E-05	1.24E-06	1.09E-07	8.35E-09	4.13E-10
91145.80	11.30	6.78E-01	2.73E-02	8.99E-04	2.78E-05	1.49E-06	1.14E-07	8.45E-09	4.14E-10
91952.40	11.40	2.47E-01	6.39E-03	2.56E-04	1.62E-05	1.24E-06	1.09E-07	8.35E-09	4.13E-10
92759.00	11.50	6.80E-01	2.74E-02	9.02E-04	2.78E-05	1.49E-06	1.14E-07	8.45E-09	4.14E-10
93565.60	11.60	2.47E-01	6.40E-03	2.56E-04	1.62E-05	1.24E-06	1.09E-07	8.35E-09	4.13E-10
94372.20	11.70	6.81E-01	2.75E-02	9.05E-04	2.79E-05	1.49E-06	1.14E-07	8.45E-09	4.14E-10
95178.80	11.80	2.47E-01	6.40E-03	2.56E-04	1.62E-05	1.24E-06	1.09E-07	8.35E-09	4.13E-10

78240.20	9.70	6.83E-01	2.76E-02	9.08E-04	2.79E-05	1.49E-06	1.14E-07	8.45E-09	4.15E-10
		2.47E-01	6.39E-03	2.56E-04	1.62E-05	1.27E-06	1.09E-07	5.35E-09	4.14E-10
79046.80	9.80	6.84E-01	2.77E-02	9.11E-04	2.80E-05	1.49E-06	1.14E-07	8.45E-09	4.15E-10
		2.47E-01	6.39E-03	2.56E-04	1.62E-05	1.27E-06	1.09E-07	5.35E-09	4.14E-10
79653.40	9.90	6.86E-01	2.78E-02	9.14E-04	2.80E-05	1.49E-06	1.14E-07	8.45E-09	4.15E-10
		2.47E-01	6.39E-03	2.56E-04	1.62E-05	1.27E-06	1.09E-07	5.35E-09	4.14E-10
80660.00	10.00	6.87E-01	2.79E-02	9.17E-04	2.80E-05	1.49E-06	1.14E-07	8.45E-09	4.15E-10
		2.47E-01	6.39E-03	2.56E-04	1.62E-05	1.27E-06	1.09E-07	5.35E-09	4.14E-10
81466.60	10.10	6.89E-01	2.80E-02	9.20E-04	2.81E-05	1.49E-06	1.14E-07	8.46E-09	4.15E-10
		2.47E-01	6.39E-03	2.56E-04	1.62E-05	1.27E-06	1.09E-07	5.35E-09	4.14E-10
82273.20	10.20	6.91E-01	2.81E-02	9.23E-04	2.81E-05	1.49E-06	1.14E-07	8.46E-09	4.15E-10
		2.47E-01	6.39E-03	2.57E-04	1.62E-05	1.27E-06	1.09E-07	5.36E-09	4.14E-10
83879.80	10.30	6.92E-01	2.82E-02	9.26E-04	2.82E-05	1.49E-06	1.14E-07	8.46E-09	4.15E-10
		2.47E-01	6.39E-03	2.57E-04	1.62E-05	1.27E-06	1.09E-07	5.36E-09	4.14E-10
83886.40	10.40	6.94E-01	2.83E-02	9.29E-04	2.82E-05	1.49E-06	1.14E-07	8.46E-09	4.15E-10
		2.47E-01	6.40E-03	2.57E-04	1.62E-05	1.27E-06	1.09E-07	5.36E-09	4.14E-10
84693.00	10.50	6.95E-01	2.84E-02	9.35E-04	2.83E-05	1.49E-06	1.14E-07	8.46E-09	4.14E-10
		2.47E-01	6.40E-03	2.57E-04	1.62E-05	1.27E-06	1.09E-07	5.36E-09	4.14E-10
85499.60	10.60	6.97E-01	2.85E-02	9.36E-04	2.83E-05	1.49E-06	1.14E-07	8.46E-09	4.16E-10
		2.47E-01	6.40E-03	2.57E-04	1.62E-05	1.27E-06	1.09E-07	5.36E-09	4.14E-10
86306.20	10.70	7.01E-01	2.90E-02	9.42E-04	2.84E-05	1.49E-06	1.14E-07	8.46E-09	4.15E-10
		2.48E-01	6.44E-03	2.57E-04	1.62E-05	1.27E-06	1.09E-07	5.36E-09	4.15E-10
86726.00	11.00	7.02E-01	2.92E-02	9.66E-04	3.34E-05	1.99E-06	1.61E-07	1.21E-08	6.00E-10
		2.49E-01	6.49E-03	3.00E-04	2.12E-05	1.77E-06	1.56E-07	1.20E-08	5.99E-10
90742.50	11.25	7.03E-01	2.94E-02	1.02E-03	3.69E-05	2.34E-06	1.93E-07	1.47E-08	7.29E-10
		2.50E-01	7.07E-03	3.31E-04	2.47E-05	2.12E-06	1.80E-07	1.46E-08	7.24E-10
92759.00	11.50	7.03E-01	2.95E-02	1.04E-03	3.94E-05	2.61E-06	2.18E-07	1.67E-08	8.29E-10
		2.50E-01	7.21E-03	3.54E-04	2.74E-05	2.39E-06	2.13E-07	1.60E-08	8.28E-10
94775.50	11.75	7.04E-01	2.96E-02	1.06E-03	4.17E-05	2.82E-06	2.37E-07	1.82E-08	9.04E-10
		2.51E-01	7.31E-03	3.72E-04	2.95E-05	2.99E-06	2.33E-07	1.81E-08	9.04E-10
98792.00	12.00	7.06E-01	3.02E-02	1.15E-03	4.33E-05	2.98E-06	2.52E-07	1.94E-08	9.65E-10
		2.53E-01	7.59E-03	4.66E-04	3.11E-05	2.75E-06	2.47E-07	1.93E-08	9.64E-10
98808.50	12.25	7.08E-01	3.06E-02	1.22E-03	5.10E-05	3.61E-06	3.29E-07	2.59E-08	1.27E-09
		2.55E-01	8.27E-03	5.30E-04	3.95E-05	3.98E-06	3.25E-07	2.56E-08	1.27E-09
100838.00	12.50	7.09E-01	3.09E-02	1.28E-03	5.81E-05	4.45E-06	3.89E-07	3.02E-08	1.51E-09
		2.56E-01	8.99E-03	5.95E-04	4.59E-05	4.22E-06	3.84E-07	3.01E-08	1.51E-09
103041.50	12.75	7.10E-01	3.12E-02	1.33E-03	6.35E-05	4.97E-06	4.35E-07	3.39E-08	1.69E-09
		2.57E-01	9.05E-03	6.40E-04	5.11E-05	4.74E-06	4.30E-07	3.38E-08	1.69E-09
104858.00	13.00	7.11E-01	3.14E-02	1.36E-03	6.73E-05	5.17E-06	4.72E-07	3.68E-08	1.84E-09
		2.58E-01	9.05E-03	6.75E-04	5.51E-05	5.14E-06	4.67E-07	3.67E-08	1.84E-09
106074.50	13.25	7.11E-01	3.15E-02	1.39E-03	7.04E-05	5.67E-06	5.00E-07	3.91E-08	1.95E-09
		2.58E-01	9.20E-03	7.02E-04	5.82E-05	5.45E-06	4.96E-07	3.90E-08	1.95E-09
108091.00	13.50	7.14E-01	3.19E-02	1.44E-03	7.58E-05	6.21E-06	5.22E-07	4.08E-08	2.04E-09
		2.61E-01	9.62E-03	7.53E-04	6.36E-05	5.98E-06	5.17E-07	4.07E-08	2.04E-09
110907.50	13.75	7.17E-01	3.23E-02	1.48E-03	8.01E-05	6.62E-06	5.61E-07	4.39E-08	2.21E-09
		2.64E-01	9.94E-03	7.92E-04	8.78E-05	6.80E-06	5.96E-07	4.38E-08	2.21E-09
112994.00	14.00	7.19E-01	3.26E-02	1.51E-03	8.39E-05	7.01E-06	5.98E-07	4.69E-08	2.34E-09
		2.66E-01	1.02E-02	8.20E-04	7.17E-05	6.79E-06	5.93E-07	4.68E-08	2.34E-09
114940.50	14.25	7.20E-01	3.28E-02	1.54E-03	8.70E-05	7.32E-06	6.26E-07	4.93E-08	2.47E-09
		2.67E-01	1.04E-02	8.58E-04	7.48E-05	7.09E-06	6.21E-07	4.92E-08	2.46E-09

Wave Number (cm ⁻¹)	Photon Energy (eV)	1.0E 01	1.0E 02	1.0E 03	1.0E 04	10.0E-05	10.0E-06	10.0E-07
116957.00	14.50	7.23E-01	3.33E-02	1.63E-03	8.24E-06	7.12E-07	5.61E-08	2.56E-09
		2.70E-01	1.10E-02	9.40E-04	8.41E-05	7.08E-07	5.60E-08	2.56E-09
118973.50	14.75	7.25E-01	3.37E-02	1.65E-03	8.36E-06	7.79E-07	6.15E-08	2.83E-09
		2.72E-01	1.14E-02	1.00E-03	8.73E-06	7.74E-07	6.14E-08	2.83E-09
130990.00	15.00	7.27E-01	3.40E-02	1.74E-03	9.51E-06	8.31E-07	6.51E-08	3.04E-09
		2.74E-01	1.17E-02	1.05E-03	9.69E-06	8.26E-07	6.52E-08	3.04E-09
132008.50	15.25	7.28E-01	3.43E-02	1.78E-03	1.13E-05	9.71E-07	6.89E-08	3.21E-09
		2.75E-01	1.19E-02	1.09E-03	1.01E-04	8.66E-07	6.87E-08	3.21E-09
135023.00	15.50	7.29E-01	3.45E-02	1.81E-03	1.17E-04	9.02E-07	7.13E-08	3.33E-09
		2.76E-01	1.21E-02	1.12E-03	1.05E-04	8.97E-07	7.12E-08	3.33E-09
137039.50	15.75	7.30E-01	3.46E-02	1.83E-03	1.19E-04	9.26E-07	7.31E-08	3.43E-09
		2.77E-01	1.23E-02	1.14E-03	1.07E-04	9.21E-07	7.30E-08	3.43E-09
139056.00	16.00	7.30E-01	3.47E-02	1.85E-03	1.21E-04	9.43E-07	7.46E-08	3.50E-09
		2.77E-01	1.24E-02	1.16E-03	1.09E-04	9.39E-07	7.45E-08	3.50E-09
131072.50	16.25	7.31E-01	3.48E-02	1.86E-03	1.23E-04	9.57E-07	7.56E-08	3.56E-09
		2.77E-01	1.25E-02	1.17E-03	1.11E-04	9.52E-07	7.55E-08	3.56E-09
133089.00	16.50	7.31E-01	3.49E-02	1.87E-03	1.24E-04	9.67E-07	7.65E-08	3.60E-09
		2.78E-01	1.25E-02	1.18E-03	1.12E-04	9.62E-07	7.64E-08	3.60E-09
135105.50	16.75	7.31E-01	3.49E-02	1.88E-03	1.25E-04	9.75E-07	7.71E-08	3.63E-09
		2.78E-01	1.26E-02	1.19E-03	1.12E-04	9.70E-07	7.70E-08	3.63E-09
137122.00	17.00	7.31E-01	3.49E-02	1.89E-03	1.25E-04	9.81E-07	7.76E-08	3.66E-09
		2.78E-01	1.26E-02	1.20E-03	1.13E-04	9.76E-07	7.75E-08	3.66E-09
139138.50	17.25	7.32E-01	3.50E-02	1.89E-03	1.26E-04	9.86E-07	7.80E-08	3.68E-09
		2.78E-01	1.26E-02	1.20E-03	1.14E-04	9.81E-07	7.79E-08	3.67E-09
141155.00	17.50	7.32E-01	3.50E-02	1.89E-03	1.26E-04	9.90E-07	7.82E-08	3.69E-09
		2.79E-01	1.27E-02	1.21E-03	1.14E-04	9.85E-07	7.81E-08	3.69E-09
143171.50	17.75	7.32E-01	3.50E-02	1.89E-03	1.26E-04	9.92E-07	7.85E-08	3.70E-09
		2.79E-01	1.27E-02	1.21E-03	1.14E-04	9.87E-07	7.84E-08	3.70E-09
145188.00	18.00	7.32E-01	3.50E-02	1.90E-03	1.27E-04	9.94E-07	7.86E-08	3.71E-09
		2.79E-01	1.27E-02	1.21E-03	1.15E-04	9.89E-07	7.85E-08	3.71E-09
147204.50	18.25	7.32E-01	3.50E-02	1.90E-03	1.27E-04	9.96E-07	7.87E-08	3.72E-09
		2.79E-01	1.27E-02	1.21E-03	1.15E-04	9.91E-07	7.86E-08	3.72E-09
149221.00	18.50	7.32E-01	3.50E-02	1.90E-03	1.27E-04	9.97E-07	7.88E-08	3.72E-09
		2.79E-01	1.27E-02	1.21E-03	1.15E-04	9.92E-07	7.87E-08	3.72E-09
151237.50	18.75	7.32E-01	3.50E-02	1.90E-03	1.27E-04	9.98E-07	7.89E-08	3.72E-09
		2.79E-01	1.27					

163396.50	20.25	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	10.00E-07	7.91E-08	3.73E-09
163397.50	20.25	2.79E-01	1.27E-02	1.22E-03	1.15E-04	1.13E-05	9.95E-07	7.91E-08	3.73E-09
163398.50	20.50	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.73E-09
163399.50	20.50	2.79E-01	1.27E-02	1.22E-03	1.15E-04	1.13E-05	9.95E-07	7.91E-08	3.73E-09
163400.50	20.75	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.73E-09
163401.50	20.75	2.79E-01	1.27E-02	1.22E-03	1.15E-04	1.13E-05	9.95E-07	7.91E-08	3.73E-09
163402.50	21.00	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.73E-09
163403.50	21.00	2.79E-01	1.27E-02	1.22E-03	1.15E-04	1.13E-05	9.95E-07	7.91E-08	3.73E-09
163404.50	21.25	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.73E-09
163405.50	21.25	2.79E-01	1.27E-02	1.22E-03	1.15E-04	1.13E-05	9.95E-07	7.91E-08	3.73E-09
163406.50	21.50	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.73E-09
163407.50	21.50	2.79E-01	1.27E-02	1.22E-03	1.15E-04	1.13E-05	9.95E-07	7.91E-08	3.73E-09
163408.50	21.75	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.73E-09
163409.50	21.75	2.79E-01	1.27E-02	1.22E-03	1.15E-04	1.13E-05	9.95E-07	7.91E-08	3.73E-09
163410.50	22.00	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.73E-09
163411.50	22.00	2.79E-01	1.27E-02	1.22E-03	1.15E-04	1.13E-05	9.95E-07	7.91E-08	3.73E-09
163412.50	22.25	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.73E-09
163413.50	22.25	2.79E-01	1.27E-02	1.22E-03	1.15E-04	1.13E-05	9.95E-07	7.91E-08	3.73E-09
163414.50	22.50	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.73E-09
163415.50	22.50	2.79E-01	1.27E-02	1.22E-03	1.15E-04	1.13E-05	9.95E-07	7.91E-08	3.73E-09
163416.50	22.75	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.73E-09
163417.50	22.75	2.79E-01	1.27E-02	1.22E-03	1.15E-04	1.13E-05	9.95E-07	7.91E-08	3.73E-09
163418.50	23.00	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.73E-09
163419.50	23.00	2.79E-01	1.27E-02	1.22E-03	1.15E-04	1.13E-05	9.95E-07	7.91E-08	3.73E-09
163420.50	23.25	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-08	3.73E-09
163421.50	23.25	2.79E-01	1.27E-02	1.22E-03	1.15E-04	1.13E-05	9.95E-07	7.91E-08	3.73E-09

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 10000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	1.0E-01	1.0E-00	Density × Normal	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
4839.60	0.60	2.14E-03	1.97E-04	2.15E-05	1.88E-06	1.77E-07	1.46E-08	8.14E-10	1.98E-11
5646.20	0.70	2.13E-03	1.96E-04	2.15E-05	1.88E-06	1.77E-07	1.46E-08	8.14E-10	1.98E-11
6452.80	0.80	4.33E-03	4.20E-04	4.53E-05	4.25E-06	3.67E-07	3.02E-08	1.69E-09	4.11E-11
7259.40	0.90	4.21E-03	4.06E-04	4.50E-05	4.25E-06	3.67E-07	3.02E-08	1.69E-09	4.11E-11
8066.30	1.00	6.04E-03	7.06E-04	7.20E-05	6.84E-06	6.07E-07	5.00E-08	2.70E-09	5.34E-11
8872.60	1.10	6.26E-03	6.26E-04	7.06E-05	6.83E-06	6.06E-07	5.00E-08	2.70E-09	5.34E-11
9679.20	1.20	1.40E-02	1.11E-03	1.02E-04	9.56E-06	8.60E-07	7.09E-08	3.85E-09	9.15E-11
		8.23E-03	8.56E-04	9.72E-05	9.51E-06	8.60E-07	7.09E-08	3.85E-09	9.15E-11
		2.18E-02	1.09E-03	1.34E-04	1.23E-05	1.11E-06	9.19E-08	5.02E-09	1.20E-10
		1.01E-02	1.09E-03	1.25E-04	1.23E-05	1.11E-06	9.19E-08	5.02E-09	1.20E-10
		3.13E-02	2.18E-03	1.67E-04	1.50E-05	1.37E-06	1.12E-07	6.15E-09	1.47E-10
		1.20E-02	1.31E-03	1.51E-04	1.49E-05	1.37E-06	1.12E-07	6.15E-09	1.47E-10
		4.34E-02	2.86E-03	2.00E-04	1.76E-05	1.60E-06	1.31E-07	7.20E-09	1.73E-10
		1.36E-02	1.52E-03	1.76E-04	1.73E-05	1.60E-06	1.31E-07	7.20E-09	1.73E-10

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 1000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal									
		1.0E 01	1.0E 00	1.0E-01	10.0E-02	1.0E-03	1.0E-04	10.0E-05	10.0E-06	1.0E-07	
10485.80	1.30	5.71E-02	7.63E-03	2.38E-04	1.90E-05	1.80E-06	1.47E-07	8.12E-09	1.95E-10		
11292.40	1.40	7.64E-02	1.75E-03	2.04E-04	1.95E-05	1.60E-06	1.47E-07	8.12E-09	1.95E-10		
12099.00	1.50	9.78E-02	2.69E-03	2.77E-04	2.24E-05	1.97E-06	1.60E-07	8.85E-09	2.13E-10		
12905.60	1.60	1.19E-01	4.64E-03	3.17E-04	2.49E-05	2.10E-06	1.78E-07	9.00E-09	2.30E-10		
13712.20	1.70	1.49E-01	6.10E-03	3.54E-04	2.43E-05	2.10E-06	1.77E-07	9.00E-09	2.30E-10		
14518.80	1.80	1.77E-01	7.70E-03	3.53E-04	2.72E-05	2.38E-06	1.93E-07	1.06E-08	2.50E-10		
15325.40	1.90	2.11E-01	1.00E-02	3.95E-04	2.64E-05	2.37E-06	1.93E-07	1.06E-08	2.50E-10		
16132.00	2.00	2.33E-01	1.27E-02	4.33E-04	2.94E-05	2.56E-06	2.08E-07	1.14E-08	2.78E-10		
16938.60	2.10	2.49E-01	1.54E-02	4.75E-04	3.14E-05	2.72E-06	2.21E-07	1.22E-08	2.88E-10		
17745.20	2.20	2.63E-01	1.76E-02	5.06E-04	3.32E-05	2.87E-06	2.33E-07	1.28E-08	3.03E-10		
18551.80	2.30	2.73E-01	1.98E-02	5.35E-04	3.48E-05	3.01E-06	2.44E-07	1.34E-08	3.18E-10		
19358.40	2.40	2.81E-01	2.20E-02	5.64E-04	3.64E-05	3.13E-06	2.53E-07	1.39E-08	3.31E-10		
20165.00	2.50	2.88E-01	2.42E-02	5.91E-04	3.77E-05	3.23E-06	2.62E-07	1.44E-08	3.42E-10		
20971.60	2.60	2.96E-01	2.64E-02	6.07E-04	3.88E-05	3.33E-06	2.69E-07	1.48E-08	3.52E-10		
21778.20	2.70	3.04E-01	2.86E-02	6.24E-04	3.98E-05	3.41E-06	2.75E-07	1.52E-08	3.60E-10		
22584.80	2.80	3.12E-01	3.08E-02	6.46E-04	4.08E-05	3.49E-06	2.81E-07	1.56E-08	3.67E-10		
23391.40	2.90	3.21E-01	3.30E-02	6.65E-04	4.18E-05	3.57E-06	2.88E-07	1.57E-08	3.73E-10		
24198.00	3.00	3.31E-01	3.52E-02	6.87E-04	4.28E-05	3.66E-06	2.97E-07	1.61E-08	3.82E-10		
25004.60	3.10	3.42E-01	3.74E-02	7.14E-04	4.38E-05	3.78E-06	3.04E-07	1.65E-08	3.93E-10		
25811.20	3.20	3.56E-01	3.96E-02	7.35E-04	4.48E-05	3.87E-06	3.11E-07	1.69E-08	4.02E-10		
26617.80	3.30	3.70E-01	4.18E-02	7.62E-04	4.58E-05	3.96E-06	3.18E-07	1.72E-08	4.11E-10		
27424.40	3.40	3.83E-01	4.40E-02	7.90E-04	4.68E-05	4.04E-06	3.24E-07	1.75E-08	4.18E-10		
		1.41E-01	7.03E-03	5.60E-04	4.80E-05	4.16E-06	3.36E-07	1.83E-08	4.37E-10		

28231.00	3.50	4.08E-01	1.99E-02	8.65E-04	5.41E-05	4.33E-06	3.42E-07	1.45E-08	4.41E-10
		1.51E-01	7.34E-03	5.75E-04	4.07E-05	4.21E-06	3.40E-07	1.05E-08	4.41E-10
29037.60	3.60	4.27E-01	2.07E-02	3.94E-04	5.51E-05	4.38E-06	3.45E-07	1.07E-08	4.46E-10
		1.61E-01	7.65E-03	5.86E-04	4.94E-05	4.26E-06	3.43E-07	1.06E-08	4.45E-10
29844.20	3.70	4.92E-01	2.17E-02	9.15E-04	5.59E-05	4.42E-06	3.48E-07	1.08E-08	4.49E-10
		1.72E-01	7.98E-03	9.15E-04	5.00E-05	4.29E-06	3.46E-07	1.00E-08	4.49E-10
30650.80	3.80	4.74E-01	2.25E-02	9.42E-04	5.67E-05	4.46E-06	3.51E-07	1.00E-08	4.52E-10
		1.82E-01	8.30E-03	6.15E-04	5.06E-05	4.35E-06	3.48E-07	1.09E-08	4.52E-10
31457.40	3.90	4.93E-01	2.32E-02	9.61E-04	5.75E-05	4.50E-06	3.54E-07	1.91E-08	4.56E-10
		1.92E-01	8.61E-03	6.24E-04	5.13E-05	4.37E-06	3.51E-07	1.91E-08	4.55E-10
32264.00	4.00	5.18E-01	2.41E-02	9.85E-04	5.82E-05	4.55E-06	3.57E-07	1.92E-08	4.59E-10
		2.02E-01	8.92E-03	6.37E-04	5.19E-05	4.43E-06	3.54E-07	1.92E-08	4.59E-10
33070.60	4.10	5.33E-01	2.46E-02	1.00E-03	5.89E-05	4.59E-06	3.60E-07	1.94E-08	4.62E-10
		2.11E-01	9.23E-03	6.55E-04	5.26E-05	4.45E-06	3.57E-07	1.94E-08	4.62E-10
33877.20	4.20	5.55E-01	2.54E-02	1.03E-03	5.98E-05	4.65E-06	3.63E-07	1.96E-08	4.66E-10
		2.20E-01	9.52E-03	6.65E-04	5.34E-05	4.52E-06	3.60E-07	1.95E-08	4.66E-10
34683.80	4.30	5.70E-01	2.59E-02	1.05E-03	6.06E-05	4.71E-06	3.67E-07	1.98E-08	4.73E-10
		2.29E-01	9.60E-03	6.75E-04	5.42E-05	4.58E-06	3.65E-07	1.98E-08	4.73E-10
35490.40	4.40	5.85E-01	2.63E-02	1.05E-03	6.14E-05	4.77E-06	3.71E-07	2.01E-08	4.79E-10
		2.37E-01	1.01E-02	6.88E-04	5.49E-05	4.65E-06	3.69E-07	2.00E-08	4.78E-10
36297.00	4.50	6.00E-01	2.67E-02	1.05E-03	6.21E-05	4.82E-06	3.75E-07	2.03E-08	4.84E-10
		2.44E-01	1.03E-02	7.00E-04	5.55E-05	4.68E-06	3.73E-07	2.02E-08	4.84E-10
37103.60	4.60	6.15E-01	2.71E-02	1.05E-03	6.27E-05	4.88E-06	3.79E-07	2.05E-08	4.89E-10
		2.51E-01	1.05E-02	7.11E-04	5.62E-05	4.73E-06	3.76E-07	2.04E-08	4.89E-10
37910.20	4.70	6.30E-01	2.76E-02	1.05E-03	6.33E-05	4.91E-06	3.82E-07	2.07E-08	4.94E-10
		2.58E-01	1.08E-02	7.26E-04	5.67E-05	4.77E-06	3.79E-07	2.06E-08	4.94E-10
38716.80	4.80	6.45E-01	2.80E-02	1.10E-03	6.39E-05	4.95E-06	3.85E-07	2.08E-08	4.98E-10
		2.64E-01	1.10E-02	7.30E-04	5.73E-05	4.81E-06	3.82E-07	2.08E-08	4.98E-10
39523.40	4.90	6.60E-01	2.84E-02	1.12E-03	6.44E-05	4.99E-06	3.88E-07	2.10E-08	5.02E-10
		2.70E-01	1.12E-02	7.38E-04	5.78E-05	4.89E-06	3.85E-07	2.10E-08	5.02E-10
40330.00	5.00	6.74E-01	2.87E-02	1.13E-03	6.49E-05	5.02E-06	3.91E-07	2.11E-08	5.06E-10
		2.76E-01	1.13E-02	7.48E-04	5.82E-05	4.88E-06	3.88E-07	2.11E-08	5.06E-10
41136.60	5.10	6.88E-01	2.91E-02	1.15E-03	6.53E-05	5.05E-06	3.93E-07	2.13E-08	5.09E-10
		2.81E-01	1.15E-02	7.55E-04	5.87E-05	4.91E-06	3.90E-07	2.12E-08	5.09E-10
41943.20	5.20	7.00E-01	2.94E-02	1.15E-03	6.57E-05	5.08E-06	3.95E-07	2.14E-08	5.13E-10
		2.86E-01	1.17E-02	7.68E-04	5.91E-05	4.94E-06	3.92E-07	2.14E-08	5.12E-10
42749.80	5.30	7.15E-01	2.98E-02	1.15E-03	6.61E-05	5.11E-06	3.97E-07	2.15E-08	5.15E-10
		2.91E-01	1.18E-02	7.68E-04	5.94E-05	4.97E-06	3.94E-07	2.15E-08	5.15E-10
43556.40	5.40	7.28E-01	3.01E-02	1.16E-03	6.65E-05	5.13E-06	3.99E-07	2.16E-08	5.18E-10
		2.95E-01	1.20E-02	7.75E-04	5.98E-05	5.00E-06	3.96E-07	2.16E-08	5.18E-10
44363.00	5.50	7.39E-01	3.04E-02	1.17E-03	6.68E-05	5.16E-06	4.01E-07	2.17E-08	5.21E-10
		2.99E-01	1.21E-02	7.78E-04	6.01E-05	5.02E-06	3.98E-07	2.17E-08	5.21E-10
45169.60	5.60	7.52E-01	3.07E-02	1.18E-03	6.72E-05	5.18E-06	4.02E-07	2.18E-08	5.23E-10
		3.03E-01	1.22E-02	7.83E-04	6.04E-05	5.04E-06	4.00E-07	2.18E-08	5.23E-10
45976.20	5.70	7.61E-01	3.10E-02	1.19E-03	6.75E-05	5.20E-06	4.04E-07	2.19E-08	5.25E-10
		3.06E-01	1.23E-02	7.88E-04	6.07E-05	5.05E-06	4.01E-07	2.19E-08	5.25E-10
46782.80	5.80	7.70E-01	3.12E-02	1.19E-03	6.77E-05	5.22E-06	4.05E-07	2.20E-08	5.27E-10
		3.10E-01	1.24E-02	7.93E-04	6.09E-05	5.08E-06	4.03E-07	2.19E-08	5.27E-10
47589.40	5.90	7.78E-01	3.14E-02	1.20E-03	6.80E-05	5.23E-06	4.07E-07	2.20E-08	5.29E-10
		3.14E-01	1.26E-02	7.98E-04	6.12E-05	5.10E-06	4.04E-07	2.20E-08	5.29E-10

PARTIAL PLANK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR, 1000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density x Normal					
		1.0E 01	1.0E 00	1.0E-01	1.0E-02	1.0E-03	1.0E-04
46356.00	6.00	7.09E-01	3.16E-02	1.20E-03	6.03E-05	5.29E-06	4.00E-07
		3.17E-01	1.27E-02	0.02E-04	6.14E-05	5.11E-06	4.03E-07
49202.60	6.10	7.07E-01	3.10E-02	1.21E-03	6.05E-05	5.26E-06	4.09E-07
		3.20E-01	1.28E-02	0.04E-04	6.16E-05	5.13E-06	4.08E-07
59009.20	6.20	8.05E-01	3.21E-02	1.22E-03	6.07E-05	5.20E-06	4.10E-07
		3.23E-01	1.29E-02	0.10E-04	6.18E-05	5.14E-06	4.07E-07
50815.80	6.30	8.11E-01	3.23E-02	1.22E-03	6.09E-05	5.29E-06	4.11E-07
		3.26E-01	1.29E-02	0.13E-04	6.20E-05	5.15E-06	4.09E-07
51622.40	6.40	8.19E-01	3.29E-02	1.23E-03	6.91E-05	5.30E-06	4.12E-07
		3.28E-01	1.30E-02	0.16E-04	6.22E-05	5.17E-06	4.09E-07
52429.00	6.50	8.27E-01	3.27E-02	1.23E-03	6.93E-05	5.31E-06	4.13E-07
		3.30E-01	1.31E-02	0.19E-04	6.23E-05	5.18E-06	4.10E-07
53235.60	6.60	8.32E-01	3.29E-02	1.23E-03	6.94E-05	5.33E-06	4.13E-07
		3.32E-01	1.32E-02	0.22E-04	6.25E-05	5.19E-06	4.11E-07
54042.20	6.70	8.38E-01	3.31E-02	1.24E-03	6.96E-05	5.33E-06	4.11E-07
		3.34E-01	1.32E-02	0.24E-04	6.26E-05	5.20E-06	4.11E-07
54848.80	6.80	8.44E-01	3.32E-02	1.24E-03	6.97E-05	5.34E-06	4.11E-07
		3.36E-01	1.33E-02	0.27E-04	6.27E-05	5.20E-06	4.12E-07
55655.40	6.90	8.48E-01	3.34E-02	1.25E-03	6.99E-05	5.35E-06	4.11E-07
		3.38E-01	1.33E-02	0.29E-04	6.28E-05	5.21E-06	4.11E-07
56462.00	7.00	8.52E-01	3.35E-02	1.25E-03	7.00E-05	5.36E-06	4.10E-07
		3.39E-01	1.34E-02	0.31E-04	6.30E-05	5.22E-06	4.13E-07
57268.60	7.10	8.58E-01	3.36E-02	1.25E-03	7.01E-05	5.37E-06	4.11E-07
		3.43E-01	1.34E-02	0.33E-04	6.31E-05	5.23E-06	4.14E-07
58075.20	7.20	8.63E-01	3.38E-02	1.26E-03	7.02E-05	5.37E-06	4.11E-07
		3.47E-01	1.35E-02	0.35E-04	6.32E-05	5.23E-06	4.14E-07
58881.80	7.30	8.69E-01	3.39E-02	1.26E-03	7.03E-05	5.38E-06	4.17E-07
		3.51E-01	1.36E-02	0.37E-04	6.32E-05	5.24E-06	4.13E-07
59686.40	7.40	8.73E-01	3.40E-02	1.26E-03	7.04E-05	5.38E-06	4.15E-07
		3.54E-01	1.37E-02	0.39E-04	6.33E-05	5.24E-06	4.15E-07
60495.00	7.50	8.78E-01	3.42E-02	1.27E-03	7.05E-05	5.39E-06	4.10E-07
		3.58E-01	1.37E-02	0.40E-04	6.34E-05	5.25E-06	4.15E-07
61301.60	7.60	8.83E-01	3.43E-02	1.27E-03	7.06E-05	5.39E-06	4.10E-07
		3.61E-01	1.38E-02	0.42E-04	6.35E-05	5.25E-06	4.15E-07
62108.20	7.70	8.88E-01	3.44E-02	1.27E-03	7.07E-05	5.40E-06	4.19E-07
		3.64E-01	1.38E-02	0.43E-04	6.35E-05	5.26E-06	4.15E-07
62914.80	7.80	8.93E-01	3.46E-02	1.27E-03	7.07E-05	5.40E-06	4.15E-07
		3.67E-01	1.39E-02	0.44E-04	6.36E-05	5.26E-06	4.15E-07
63721.40	7.90	8.98E-01	3.47E-02	1.28E-03	7.08E-05	5.41E-06	4.19E-07
		3.70E-01	1.39E-02	0.46E-04	6.36E-05	5.27E-06	4.15E-07
64528.00	8.00	9.02E-01	3.49E-02	1.28E-03	7.09E-05	5.41E-06	4.20E-07
		3.73E-01	1.40E-02	0.47E-04	6.37E-05	5.27E-06	4.17E-07
65334.60	8.10	9.07E-01	3.50E-02	1.28E-03	7.09E-05	5.41E-06	4.20E-07
		3.75E-01	1.40E-02	0.48E-04	6.37E-05	5.27E-06	4.17E-07

66141.20	8.20	9.12E-01	3.51E-02	1.20E-03	7.10E-05	5.42E-06	4.20E-07	2.20E-08	5.40E-10
66947.60	8.30	9.77E-01	1.41E-02	8.40E-04	6.30E-05	5.20E-06	4.17E-07	2.20E-08	5.40E-10
		9.16E-01	3.53E-02	1.20E-03	7.11E-05	5.42E-06	4.20E-07	2.20E-08	5.40E-10
		3.80E-01	1.41E-02	8.50E-04	6.30E-05	5.20E-06	4.17E-07	2.20E-08	5.40E-10
67754.40	8.40	9.21E-01	3.54E-02	1.20E-03	7.11E-05	5.42E-06	4.20E-07	2.20E-08	5.40E-10
		9.82E-01	1.41E-02	8.51E-04	6.30E-05	5.20E-06	4.10E-07	2.20E-08	5.40E-10
68561.00	8.50	9.25E-01	3.56E-02	1.20E-03	7.12E-05	5.42E-06	4.21E-07	2.20E-08	5.40E-10
		9.83E-01	1.42E-02	8.51E-04	6.30E-05	5.20E-06	4.10E-07	2.20E-08	5.40E-10
69367.60	8.60	9.30E-01	3.57E-02	1.30E-03	7.12E-05	5.43E-06	4.21E-07	2.20E-08	5.40E-10
		9.89E-01	1.42E-02	8.52E-04	6.30E-05	5.20E-06	4.10E-07	2.20E-08	5.40E-10
70174.20	8.70	9.34E-01	3.59E-02	1.30E-03	7.13E-05	5.43E-06	4.21E-07	2.20E-08	5.40E-10
		9.87E-01	1.42E-02	8.53E-04	6.40E-05	5.20E-06	4.10E-07	2.20E-08	5.40E-10
70980.80	8.80	9.38E-01	3.60E-02	1.30E-03	7.13E-05	5.43E-06	4.21E-07	2.20E-08	5.40E-10
		9.88E-01	1.42E-02	8.53E-04	6.40E-05	5.20E-06	4.10E-07	2.20E-08	5.40E-10
71787.40	8.90	9.43E-01	3.62E-02	1.30E-03	7.14E-05	5.43E-06	4.21E-07	2.20E-08	5.40E-10
		9.90E-01	1.43E-02	8.54E-04	6.40E-05	5.20E-06	4.10E-07	2.20E-08	5.40E-10
72594.00	9.00	9.47E-01	3.63E-02	1.31E-03	7.15E-05	5.43E-06	4.21E-07	2.20E-08	5.40E-10
		9.91E-01	1.43E-02	8.54E-04	6.40E-05	5.20E-06	4.10E-07	2.20E-08	5.40E-10
73400.60	9.10	9.51E-01	3.65E-02	1.31E-03	7.15E-05	5.43E-06	4.21E-07	2.20E-08	5.40E-10
		9.92E-01	1.43E-02	8.55E-04	6.40E-05	5.20E-06	4.10E-07	2.20E-08	5.40E-10
74207.20	9.20	9.55E-01	3.67E-02	1.31E-03	7.15E-05	5.43E-06	4.21E-07	2.20E-08	5.40E-10
		9.93E-01	1.43E-02	8.55E-04	6.40E-05	5.20E-06	4.10E-07	2.20E-08	5.40E-10
75013.80	9.30	9.59E-01	3.68E-02	1.32E-03	7.16E-05	5.43E-06	4.22E-07	2.20E-08	5.40E-10
		9.94E-01	1.43E-02	8.55E-04	6.40E-05	5.43E-06	4.10E-07	2.20E-08	5.40E-10
75820.40	9.40	9.63E-01	3.70E-02	1.32E-03	7.16E-05	5.43E-06	4.22E-07	2.20E-08	5.40E-10
		9.94E-01	1.43E-02	8.55E-04	6.40E-05	5.43E-06	4.10E-07	2.20E-08	5.40E-10
76627.00	9.50	9.67E-01	3.71E-02	1.32E-03	7.17E-05	5.43E-06	4.22E-07	2.20E-08	5.40E-10
		9.94E-01	1.44E-02	8.57E-04	6.42E-05	5.43E-06	4.10E-07	2.20E-08	5.40E-10
77433.60	9.60	9.71E-01	3.73E-02	1.33E-03	7.17E-05	5.43E-06	4.22E-07	2.20E-08	5.40E-10
		9.95E-01	1.44E-02	8.57E-04	6.42E-05	5.43E-06	4.10E-07	2.20E-08	5.40E-10
78240.20	9.70	9.74E-01	3.75E-02	1.33E-03	7.18E-05	5.43E-06	4.22E-07	2.20E-08	5.40E-10
		9.95E-01	1.44E-02	8.57E-04	6.42E-05	5.43E-06	4.10E-07	2.20E-08	5.40E-10
79046.80	9.80	9.78E-01	3.77E-02	1.33E-03	7.19E-05	5.43E-06	4.22E-07	2.20E-08	5.40E-10
		9.95E-01	1.44E-02	8.58E-04	6.42E-05	5.43E-06	4.10E-07	2.20E-08	5.40E-10
79853.40	9.90	9.82E-01	3.78E-02	1.33E-03	7.19E-05	5.43E-06	4.22E-07	2.20E-08	5.40E-10
		9.95E-01	1.44E-02	8.58E-04	6.42E-05	5.43E-06	4.10E-07	2.20E-08	5.40E-10
80660.00	10.00	9.86E-01	3.80E-02	1.33E-03	7.20E-05	5.43E-06	4.23E-07	2.20E-08	5.40E-10
		9.95E-01	1.44E-02	8.58E-04	6.42E-05	5.43E-06	4.10E-07	2.20E-08	5.40E-10
81466.60	10.10	9.90E-01	3.82E-02	1.33E-03	7.20E-05	5.43E-06	4.23E-07	2.20E-08	5.40E-10
		9.95E-01	1.44E-02	8.58E-04	6.42E-05	5.43E-06	4.10E-07	2.20E-08	5.40E-10
82273.20	10.20	9.94E-01	3.84E-02	1.33E-03	7.21E-05	5.43E-06	4.23E-07	2.20E-08	5.40E-10
		9.95E-01	1.44E-02	8.59E-04	6.42E-05	5.43E-06	4.10E-07	2.20E-08	5.40E-10
83079.80	10.30	9.98E-01	3.85E-02	1.33E-03	7.21E-05	5.43E-06	4.23E-07	2.20E-08	5.40E-10
		9.95E-01	1.44E-02	8.59E-04	6.42E-05	5.43E-06	4.10E-07	2.20E-08	5.40E-10
83886.40	10.40	1.00E-00	3.87E-02	1.33E-03	7.21E-05	5.43E-06	4.23E-07	2.20E-08	5.40E-10
		9.95E-01	1.44E-02	8.59E-04	6.42E-05	5.43E-06	4.10E-07	2.20E-08	5.40E-10
84693.00	10.50	1.01E-00	3.89E-02	1.33E-03	7.22E-05	5.43E-06	4.23E-07	2.20E-08	5.40E-10
		9.95E-01	1.44E-02	8.59E-04	6.42E-05	5.43E-06	4.10E-07	2.20E-08	5.40E-10
85499.60	10.60	1.01E-00	3.91E-02	1.33E-03	7.22E-05	5.43E-06	4.23E-07	2.20E-08	5.40E-10
		9.95E-01	1.44E-02	8.59E-04	6.42E-05	5.43E-06	4.10E-07	2.20E-08	5.40E-10

PART 2 PLANK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR 1000°K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density x Normal					
		1.0E-01	1.0E-02	1.0E-03	10.0E-04	10.0E-05	10.0E-06
86306.20	10.70	1.03E-00	4.09E-02	1.50E-03	9.47E-04	4.23E-07	2.30E-08
86306.00	10.70	1.03E-01	1.50E-02	1.05E-03	5.12E-04	4.20E-07	2.29E-08
86726.00	11.00	1.03E-00	4.24E-02	1.05E-03	5.12E-04	5.81E-07	3.10E-08
90747.30	11.25	4.10E-01	1.73E-02	1.25E-03	7.24E-04	9.70E-07	3.15E-08
90747.00	11.25	1.04E-00	4.35E-02	1.00E-03	8.79E-04	3.09E-07	3.70E-08
92759.00	11.50	4.15E-01	1.84E-02	1.39E-03	8.64E-04	6.92E-07	3.70E-08
92759.00	11.50	1.04E-00	4.43E-02	2.01E-03	9.90E-04	7.00E-07	4.20E-08
94775.50	11.75	4.15E-01	1.92E-02	1.51E-03	9.70E-04	7.03E-07	4.27E-08
94775.00	11.75	1.05E-00	4.50E-02	2.11E-03	1.08E-03	8.50E-07	4.67E-08
96792.00	12.00	4.20E-01	1.99E-02	1.60E-03	1.04E-03	8.90E-07	4.67E-08
96792.00	12.00	1.06E-00	4.82E-02	2.54E-03	1.13E-03	9.10E-07	4.90E-08
98808.50	12.25	4.37E-01	2.32E-02	2.03E-03	1.13E-03	9.13E-07	4.90E-08
98808.00	12.25	1.07E-00	5.00E-02	2.80E-03	1.40E-03	1.19E-06	6.47E-08
100888.00	12.50	4.49E-01	2.57E-02	2.37E-03	1.47E-03	1.10E-06	6.47E-08
100888.00	12.50	1.08E-00	5.29E-02	3.15E-03	1.75E-03	1.40E-06	7.65E-08
102841.50	12.75	4.59E-01	2.78E-02	2.65E-03	1.73E-03	1.40E-06	7.65E-08
102841.50	12.75	1.09E-00	5.46E-02	3.30E-03	1.97E-03	1.50E-06	8.59E-08
104888.00	13.00	4.67E-01	2.95E-02	2.80E-03	1.94E-03	1.57E-06	8.59E-08
104888.00	13.00	1.10E-00	5.60E-02	3.57E-03	2.15E-03	1.72E-06	9.30E-08
106874.50	13.25	4.70E-01	3.09E-02	3.06E-03	2.13E-03	1.72E-06	9.30E-08
106874.50	13.25	1.10E-00	5.70E-02	3.71E-03	2.20E-03	1.84E-06	1.00E-07
108891.00	13.50	4.79E-01	3.20E-02	3.20E-03	2.27E-03	1.83E-06	1.00E-07
108891.00	13.50	1.12E-00	5.90E-02	3.94E-03	2.51E-03	1.93E-06	1.09E-07
110907.50	13.75	4.93E-01	3.30E-02	3.43E-03	2.49E-03	1.92E-06	1.09E-07
110907.50	13.75	1.13E-00	6.06E-02	4.12E-03	2.60E-03	2.07E-06	1.14E-07
112934.00	14.00	5.04E-01	3.55E-02	3.61E-03	2.66E-03	2.07E-06	1.14E-07
112934.00	14.00	1.14E-00	6.21E-02	4.30E-03	2.85E-03	2.23E-06	1.22E-07
114940.50	14.25	5.19E-01	3.70E-02	3.79E-03	2.84E-03	2.21E-06	1.22E-07
114940.50	14.25	1.15E-00	6.33E-02	4.44E-03	2.99E-03	2.33E-06	1.29E-07
116957.00	14.50	5.23E-01	3.82E-02	3.94E-03	2.90E-03	2.33E-06	1.29E-07
116957.00	14.50	1.16E-00	6.43E-02	4.63E-03	3.37E-03	2.44E-06	1.40E-07
118973.50	14.75	5.39E-01	4.12E-02	4.32E-03	3.35E-03	2.44E-06	1.40E-07
118973.50	14.75	1.16E-00	6.60E-02	5.15E-03	3.67E-03	2.60E-06	1.60E-07
120990.00	15.00	5.53E-01	4.37E-02	4.64E-03	3.65E-03	2.60E-06	1.60E-07
120990.00	15.00	1.19E-00	7.07E-02	5.40E-03	3.91E-03	3.09E-06	1.71E-07
123006.50	15.25	5.63E-01	4.57E-02	4.69E-03	3.80E-03	3.09E-06	1.71E-07
123006.50	15.25	1.20E-00	7.23E-02	5.60E-03	4.10E-03	3.25E-06	1.80E-07
125023.00	15.50	5.72E-01	4.72E-02	5.09E-03	4.08E-03	3.24E-06	1.80E-07
125023.00	15.50	1.20E-00	7.35E-02	5.75E-03	4.25E-03	3.37E-06	1.87E-07
127039.50	15.75	5.79E-01	4.84E-02	5.29E-03	4.24E-03	3.37E-06	1.87E-07
127039.50	15.75	1.21E-00	7.45E-02	5.80E-03	4.37E-03	3.47E-06	1.92E-07
127039.50	15.75	5.84E-01	4.94E-02	5.37E-03	4.36E-03	3.47E-06	1.92E-07

128066.00	16.00	1.21E-00	5.98E-03	5.24E-04	4.47E-05	3.55E-06	1.96E-07	4.43E-09
131072.50	16.25	5.00E-01	5.47E-03	5.16E-04	4.45E-05	3.55E-06	1.96E-07	4.43E-09
		1.21E-00	6.05E-03	5.32E-04	4.54E-05	3.61E-06	2.00E-07	4.52E-09
133000.00	16.50	5.91E-01	5.54E-03	5.24E-04	4.53E-05	3.61E-06	2.00E-07	4.52E-09
		1.22E-00	6.11E-03	5.38E-04	4.60E-05	3.66E-06	2.02E-07	4.58E-09
135105.50	16.75	5.94E-01	5.60E-03	5.30E-04	4.58E-05	3.65E-06	2.02E-07	4.58E-09
		1.22E-00	6.16E-03	5.43E-04	4.64E-05	3.69E-06	2.05E-07	4.63E-09
137133.00	17.00	5.96E-01	5.65E-03	5.35E-04	4.63E-05	3.69E-06	2.05E-07	4.63E-09
		1.22E-00	6.20E-03	5.47E-04	4.68E-05	3.72E-06	2.06E-07	4.67E-09
139139.50	17.25	5.98E-01	5.69E-03	5.39E-04	4.67E-05	3.72E-06	2.06E-07	4.67E-09
		1.22E-00	6.23E-03	5.50E-04	4.71E-05	3.75E-06	2.08E-07	4.71E-09
141155.00	17.50	5.99E-01	5.72E-03	5.42E-04	4.70E-05	3.75E-06	2.08E-07	4.71E-09
		1.22E-00	6.25E-03	5.53E-04	4.73E-05	3.77E-06	2.09E-07	4.73E-09
143171.50	17.75	6.01E-01	5.75E-03	5.45E-04	4.72E-05	3.76E-06	2.09E-07	4.73E-09
		1.22E-00	5.79E-03	5.55E-04	4.75E-05	3.78E-06	2.10E-07	4.75E-09
145188.00	18.00	6.01E-01	5.76E-03	5.47E-04	4.74E-05	3.78E-06	2.09E-07	4.75E-09
		1.23E-00	6.29E-03	5.56E-04	4.76E-05	3.79E-06	2.10E-07	4.77E-09
147204.50	18.25	6.02E-01	5.78E-03	5.48E-04	4.75E-05	3.79E-06	2.10E-07	4.77E-09
		1.23E-00	6.30E-03	5.57E-04	4.77E-05	3.80E-06	2.11E-07	4.78E-09
149221.00	18.50	6.03E-01	5.79E-03	5.49E-04	4.76E-05	3.80E-06	2.11E-07	4.78E-09
		1.23E-00	6.31E-03	5.58E-04	4.78E-05	3.81E-06	2.11E-07	4.79E-09
151237.50	18.75	6.03E-01	5.80E-03	5.50E-04	4.77E-05	3.81E-06	2.11E-07	4.79E-09
		1.23E-00	6.31E-03	5.59E-04	4.79E-05	3.81E-06	2.11E-07	4.80E-09
153254.00	19.00	6.03E-01	5.81E-03	5.51E-04	4.78E-05	3.81E-06	2.11E-07	4.80E-09
		1.23E-00	6.32E-03	5.59E-04	4.80E-05	3.81E-06	2.12E-07	4.80E-09
155270.50	19.25	6.04E-01	5.81E-03	5.51E-04	4.78E-05	3.81E-06	2.12E-07	4.80E-09
		1.23E-00	6.32E-03	5.60E-04	4.80E-05	3.82E-06	2.12E-07	4.81E-09
157287.00	19.50	6.04E-01	5.82E-03	5.52E-04	4.78E-05	3.82E-06	2.12E-07	4.81E-09
		1.23E-00	6.33E-03	5.60E-04	4.80E-05	3.82E-06	2.12E-07	4.81E-09
159303.00	19.75	6.04E-01	5.82E-03	5.52E-04	4.79E-05	3.82E-06	2.12E-07	4.81E-09
		1.23E-00	6.33E-03	5.60E-04	4.79E-05	3.82E-06	2.12E-07	4.81E-09
161320.00	20.00	6.04E-01	5.82E-03	5.52E-04	4.79E-05	3.82E-06	2.12E-07	4.81E-09
		1.23E-00	6.33E-03	5.61E-04	4.81E-05	3.83E-06	2.12E-07	4.82E-09
163336.00	20.25	6.04E-01	5.82E-03	5.53E-04	4.79E-05	3.83E-06	2.12E-07	4.82E-09
		1.23E-00	6.33E-03	5.61E-04	4.81E-05	3.83E-06	2.12E-07	4.82E-09
165353.00	20.50	6.04E-01	5.82E-03	5.53E-04	4.79E-05	3.83E-06	2.12E-07	4.82E-09
		1.23E-00	6.33E-03	5.61E-04	4.81E-05	3.83E-06	2.12E-07	4.82E-09
167369.00	20.75	6.04E-01	5.82E-03	5.53E-04	4.79E-05	3.83E-06	2.12E-07	4.82E-09
		1.23E-00	6.33E-03	5.61E-04	4.81E-05	3.83E-06	2.12E-07	4.82E-09
169386.00	21.00	6.04E-01	5.82E-03	5.53E-04	4.79E-05	3.83E-06	2.12E-07	4.82E-09
		1.23E-00	6.33E-03	5.61E-04	4.81E-05	3.83E-06	2.12E-07	4.82E-09
171403.00	21.25	6.04E-01	5.82E-03	5.53E-04	4.79E-05	3.83E-06	2.12E-07	4.82E-09
		1.23E-00	6.33E-03	5.61E-04	4.81E-05	3.83E-06	2.12E-07	4.82E-09
173419.00	21.50	6.04E-01	5.82E-03	5.53E-04	4.79E-05	3.83E-06	2.12E-07	4.82E-09
		1.23E-00	6.33E-03	5.61E-04	4.81E-05	3.83E-06	2.12E-07	4.82E-09
175435.00	21.75	6.04E-01	5.82E-03	5.53E-04	4.79E-05	3.83E-06	2.12E-07	4.82E-09
		1.23E-00	6.33E-03	5.61E-04	4.81E-05	3.83E-06	2.12E-07	4.82E-09
177452.00	22.00	6.04E-01	5.82E-03	5.53E-04	4.79E-05	3.83E-06	2.12E-07	4.82E-09
		1.23E-00	6.33E-03	5.61E-04	4.81E-05	3.83E-06	2.12E-07	4.82E-09

Wave Number (cm^{-1})	Photon Energy (eV)
17648.50	22.25
18148.00	22.50
18550.50	22.75
18551.00	23.00
187594.50	23.25
189551.00	23.50
191667.50	23.75

[illegible]

Wave Number (cm ⁻¹)	Photon Energy (eV)
4839.60	0.60
5646.20	0.70
6452.80	0.80
7259.40	0.90
8066.00	1.00
8872.60	1.10
9679.20	1.20
10485.80	1.30
11292.40	1.40

1.0E 01	1.0E 00	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05	1.0E-06	1.0E-07
6.33E-03	6.80E-04	7.08E-05	6.04E-06	5.27E-07	3.43E-08	1.18E-09	1.53E-10	
6.31E-03	6.79E-04	7.08E-05	6.04E-06	5.27E-07	3.43E-08	1.18E-09	1.53E-10	
1.31E-02	1.42E-03	1.48E-04	1.35E-05	1.12E-06	7.09E-07	2.26E-08	3.16E-09	
1.28E-02	1.42E-03	1.48E-04	1.35E-05	1.12E-06	7.09E-07	2.26E-08	3.16E-09	
2.12E-02	2.26E-03	2.34E-04	2.17E-05	1.88E-06	1.16E-07	3.72E-08	4.87E-09	
1.94E-02	2.21E-03	2.33E-04	2.17E-05	1.88E-06	1.16E-07	3.72E-08	4.87E-09	
3.18E-02	3.20E-03	3.23E-04	3.02E-05	2.62E-06	1.65E-07	5.24E-08	6.99E-09	
2.60E-02	3.03E-03	3.21E-04	3.02E-05	2.62E-06	1.65E-07	5.24E-08	6.99E-09	
4.44E-02	4.22E-03	4.17E-04	3.91E-05	3.37E-06	2.14E-07	6.88E-08	9.17E-09	
3.27E-02	3.88E-03	4.12E-04	3.90E-05	3.37E-06	2.14E-07	6.88E-08	9.17E-09	
5.86E-02	5.28E-03	5.09E-04	4.77E-05	4.11E-06	2.61E-07	8.30E-08	1.13E-08	
3.92E-02	4.70E-03	5.01E-04	4.77E-05	4.11E-06	2.61E-07	8.30E-08	1.13E-08	
7.51E-02	6.36E-03	5.96E-04	5.58E-05	4.80E-06	3.06E-07	9.71E-08	1.32E-08	
4.50E-02	5.47E-03	5.85E-04	5.57E-05	4.80E-06	3.06E-07	9.71E-08	1.32E-08	
9.37E-02	7.58E-03	6.94E-04	6.49E-05	5.41E-06	3.46E-07	1.10E-08	1.50E-09	
5.14E-02	6.33E-03	6.78E-04	6.47E-05	5.41E-06	3.46E-07	1.10E-08	1.50E-09	
1.10E-01	8.89E-03	7.85E-04	7.27E-05	6.08E-06	3.76E-07	1.28E-08	1.64E-09	
5.71E-02	7.10E-03	7.62E-04	7.24E-05	6.08E-06	3.76E-07	1.28E-08	1.64E-09	

12099.00	1.30	1.44E-01	1.02E-02	8.70E-04	8.02E-05	6.72E-06	4.15E-07	1.32E-08	1.77E-10
12905.60	1.80	6.39E-02	1.03E-03	8.40E-04	7.99E-05	6.72E-06	4.15E-07	1.32E-08	1.77E-10
13712.20	1.70	1.78E-01	1.35E-02	9.08E-04	8.68E-05	7.29E-06	4.52E-07	1.44E-08	1.92E-10
14518.80	1.80	7.29E-02	8.99E-03	9.11E-04	8.65E-05	7.29E-06	4.52E-07	1.44E-08	1.92E-10
15325.40	1.90	2.07E-01	1.30E-02	1.03E-03	9.31E-05	7.82E-06	4.66E-07	1.55E-08	2.07E-10
16132.00	2.00	8.17E-02	9.32E-03	9.78E-04	9.27E-05	8.20E-06	4.86E-07	1.55E-08	2.07E-10
16938.60	2.10	2.40E-01	1.44E-02	1.10E-03	9.67E-05	8.20E-06	5.17E-07	1.64E-08	2.21E-10
17745.20	2.20	9.13E-02	1.00E-02	1.04E-03	9.82E-05	8.20E-06	5.17E-07	1.64E-08	2.21E-10
18551.80	2.30	2.81E-01	1.40E-02	1.16E-03	1.04E-04	8.72E-06	5.44E-07	1.73E-08	2.33E-10
19358.40	2.40	1.01E-01	1.07E-02	1.06E-03	1.03E-04	8.71E-06	5.44E-07	1.73E-08	2.33E-10
20165.00	2.50	3.10E-01	1.72E-02	1.09E-03	1.09E-04	9.11E-06	5.69E-07	1.81E-08	2.44E-10
20971.60	2.60	1.11E-01	1.13E-02	1.13E-03	1.08E-04	9.11E-06	5.69E-07	1.81E-08	2.44E-10
21778.20	2.70	3.32E-01	1.81E-02	1.20E-03	1.12E-04	9.47E-06	5.93E-07	1.89E-08	2.55E-10
22584.80	2.80	1.21E-01	1.19E-02	1.20E-03	1.12E-04	9.47E-06	5.93E-07	1.89E-08	2.55E-10
23391.40	2.90	3.51E-01	1.98E-02	1.33E-03	1.17E-04	9.79E-06	6.13E-07	1.95E-08	2.64E-10
24198.00	3.00	1.32E-01	1.25E-02	1.37E-03	1.20E-04	9.79E-06	6.13E-07	1.95E-08	2.64E-10
25004.60	3.10	1.42E-01	1.31E-02	1.40E-03	1.22E-04	1.01E-05	6.31E-07	2.01E-08	2.72E-10
25811.20	3.20	3.65E-01	2.07E-02	1.43E-03	1.23E-04	1.03E-05	6.46E-07	2.06E-08	2.79E-10
26617.80	3.30	1.43E-01	1.37E-02	1.43E-03	1.22E-04	1.03E-05	6.46E-07	2.06E-08	2.79E-10
27424.40	3.40	3.88E-01	2.10E-02	1.56E-03	1.27E-04	1.06E-05	6.59E-07	2.10E-08	2.84E-10
28231.00	3.50	1.45E-01	1.40E-02	1.45E-03	1.27E-04	1.06E-05	6.59E-07	2.10E-08	2.84E-10
29037.60	3.60	4.09E-01	2.25E-02	1.60E-03	1.34E-04	1.12E-05	6.90E-07	2.21E-08	3.06E-10
29844.20	3.70	1.46E-01	1.42E-02	1.46E-03	1.30E-04	1.13E-05	7.14E-07	2.26E-08	3.04E-10
30650.80	3.80	4.30E-01	2.37E-02	1.65E-03	1.37E-04	1.15E-05	7.14E-07	2.26E-08	3.04E-10
31457.40	3.90	2.00E-01	1.66E-02	1.50E-03	1.41E-04	1.16E-05	7.31E-07	2.32E-08	3.12E-10
		4.50E-01	2.47E-02	1.69E-03	1.40E-04	1.17E-05	7.31E-07	2.32E-08	3.12E-10
		2.17E-01	1.71E-02	1.58E-03	1.43E-04	1.20E-05	7.46E-07	2.37E-08	3.18E-10
		4.70E-01	2.52E-02	1.73E-03	1.47E-04	1.22E-05	7.46E-07	2.37E-08	3.18E-10
		2.27E-01	1.76E-02	1.61E-03	1.44E-04	1.22E-05	7.59E-07	2.41E-08	3.25E-10
		4.92E-01	2.64E-02	1.79E-03	1.50E-04	1.24E-05	7.73E-07	2.45E-08	3.30E-10
		2.30E-01	1.81E-02	1.64E-03	1.48E-04	1.24E-05	7.73E-07	2.45E-08	3.30E-10
		5.14E-01	2.74E-02	1.83E-03	1.53E-04	1.26E-05	7.86E-07	2.49E-08	3.35E-10
		2.40E-01	1.89E-02	1.67E-03	1.50E-04	1.26E-05	7.86E-07	2.49E-08	3.35E-10
		5.33E-01	2.81E-02	1.86E-03	1.55E-04	1.26E-05	7.94E-07	2.52E-08	3.40E-10
		2.55E-01	1.89E-02	1.78E-03	1.52E-04	1.27E-05	7.94E-07	2.52E-08	3.40E-10
		5.78E-01	2.97E-02	1.91E-03	1.57E-04	1.29E-05	8.03E-07	2.55E-08	3.44E-10
		2.70E-01	1.95E-02	1.73E-03	1.54E-04	1.29E-05	8.03E-07	2.55E-08	3.44E-10
		5.99E-01	3.09E-02	1.96E-03	1.60E-04	1.31E-05	8.11E-07	2.57E-08	3.47E-10
		2.80E-01	2.01E-02	1.76E-03	1.56E-04	1.30E-05	8.11E-07	2.57E-08	3.47E-10
		6.35E-01	3.20E-02	1.99E-03	1.61E-04	1.32E-05	8.18E-07	2.59E-08	3.50E-10
		3.02E-01	2.07E-02	1.79E-03	1.58E-04	1.31E-05	8.18E-07	2.59E-08	3.50E-10
		6.06E-01	3.32E-02	2.03E-03	1.63E-04	1.33E-05	8.27E-07	2.62E-08	3.53E-10
		3.10E-01	2.13E-02	1.82E-03	1.59E-04	1.32E-05	8.27E-07	2.62E-08	3.53E-10
		6.95E-01	3.41E-02	2.07E-03	1.65E-04	1.34E-05	8.32E-07	2.64E-08	3.56E-10
		3.34E-01	2.15E-02	1.85E-03	1.61E-04	1.34E-05	8.32E-07	2.64E-08	3.56E-10

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 1180° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Meters						
		1.0E 01	1.0E 00	1.0E -01	1.0E -02	1.0E -03	1.0E -04	1.0E -05
32264.00	4.00	7.33E-01	1.53E-02	2.11E-03	1.67E-04	1.34E-05	8.40E-07	2.64E-08
34082.01	4.00	3.40E-01	2.25E-02	1.80E-03	1.43E-04	1.13E-05	6.30E-07	2.44E-08
33070.60	4.10	7.59E-01	3.61E-02	2.14E-03	1.70E-04	1.37E-05	8.40E-07	2.64E-08
3364E-01	4.20	3.64E-01	2.32E-02	1.91E-03	1.45E-04	1.14E-05	6.47E-07	2.47E-08
33877.20	4.20	7.87E-01	3.72E-02	2.18E-03	1.72E-04	1.39E-05	8.54E-07	2.70E-08
379E-01	4.30	3.79E-01	2.39E-02	1.94E-03	1.48E-04	1.18E-05	6.54E-07	2.54E-08
34683.80	4.30	8.08E-01	3.00E-02	2.22E-03	1.74E-04	1.41E-05	8.64E-07	2.74E-08
3.93E-01	4.40	3.93E-01	2.44E-02	1.98E-03	1.70E-04	1.40E-05	8.45E-07	2.74E-08
35490.40	4.40	8.28E-01	3.04E-02	2.25E-03	1.74E-04	1.42E-05	8.77E-07	2.77E-08
4.07E-01	4.50	4.07E-01	2.49E-02	2.01E-03	1.72E-04	1.41E-05	8.75E-07	2.77E-08
36297.00	4.50	8.44E-01	3.93E-02	2.28E-03	1.78E-04	1.44E-05	8.84E-07	2.80E-08
4.20E-01	4.60	4.20E-01	2.54E-02	2.03E-03	1.74E-04	1.43E-05	8.85E-07	2.80E-08
37103.60	4.60	8.64E-01	3.99E-02	2.30E-03	1.80E-04	1.45E-05	8.95E-07	2.83E-08
4.32E-01	4.70	4.32E-01	2.59E-02	2.08E-03	1.75E-04	1.44E-05	8.94E-07	2.83E-08
37910.20	4.70	8.84E-01	4.03E-02	2.33E-03	1.82E-04	1.46E-05	9.03E-07	2.86E-08
4.44E-01	4.80	4.44E-01	2.64E-02	2.08E-03	1.77E-04	1.45E-05	9.02E-07	2.86E-08
38716.80	4.80	9.03E-01	4.10E-02	2.35E-03	1.82E-04	1.46E-05	9.11E-07	2.89E-08
4.55E-01	4.90	4.55E-01	2.69E-02	2.11E-03	1.79E-04	1.47E-05	9.10E-07	2.89E-08
39523.40	4.90	9.21E-01	4.16E-02	2.38E-03	1.85E-04	1.49E-05	9.16E-07	2.91E-08
4.65E-01	5.00	4.65E-01	2.73E-02	2.13E-03	1.80E-04	1.48E-05	9.17E-07	2.91E-08
40330.00	5.00	9.30E-01	4.21E-02	2.40E-03	1.86E-04	1.50E-05	9.25E-07	2.93E-08
4.75E-01	5.10	4.75E-01	2.77E-02	2.15E-03	1.82E-04	1.49E-05	9.23E-07	2.93E-08
41136.40	5.10	9.55E-01	4.26E-02	2.42E-03	1.87E-04	1.51E-05	9.31E-07	2.95E-08
4.84E-01	5.20	4.84E-01	2.80E-02	2.17E-03	1.83E-04	1.50E-05	9.30E-07	2.95E-08
41993.20	5.20	9.69E-01	4.31E-02	2.44E-03	1.89E-04	1.52E-05	9.37E-07	2.97E-08
4.93E-01	5.30	4.93E-01	2.84E-02	2.19E-03	1.84E-04	1.51E-05	9.35E-07	2.97E-08
42749.80	5.30	9.84E-01	4.36E-02	2.46E-03	1.90E-04	1.52E-05	9.42E-07	2.99E-08
5.02E-01	5.40	5.02E-01	2.87E-02	2.20E-03	1.85E-04	1.52E-05	9.41E-07	2.99E-08
43536.40	5.40	10.00E-01	4.40E-02	2.47E-03	1.91E-04	1.53E-05	9.47E-07	3.01E-08
5.10E-01	5.50	5.10E-01	2.90E-02	2.22E-03	1.86E-04	1.52E-05	9.46E-07	3.01E-08
44363.00	5.50	1.01E 00	4.44E-02	2.49E-03	1.92E-04	1.54E-05	9.52E-07	3.02E-08
5.17E-01	5.60	5.17E-01	2.93E-02	2.23E-03	1.87E-04	1.53E-05	9.51E-07	3.02E-08
45169.60	5.60	1.03E 00	4.48E-02	2.51E-03	1.93E-04	1.55E-05	9.54E-07	3.04E-08
5.24E-01	5.70	5.24E-01	2.96E-02	2.25E-03	1.88E-04	1.54E-05	9.55E-07	3.04E-08
45976.20	5.70	1.04E 00	4.52E-02	2.52E-03	1.94E-04	1.55E-05	9.60E-07	3.05E-08
5.31E-01	5.80	5.31E-01	2.99E-02	2.26E-03	1.89E-04	1.54E-05	9.59E-07	3.05E-08
46702.80	5.80	1.05E 00	4.55E-02	2.53E-03	1.95E-04	1.56E-05	9.64E-07	3.06E-08
5.39E-01	5.90	5.39E-01	3.02E-02	2.27E-03	1.90E-04	1.55E-05	9.63E-07	3.06E-08
47589.40	5.90	1.06E 00	4.59E-02	2.55E-03	1.95E-04	1.56E-05	9.68E-07	3.07E-08
5.45E-01	6.00	5.45E-01	3.04E-02	2.29E-03	1.91E-04	1.56E-05	9.67E-07	3.07E-08
48395.00	6.00	1.07E 00	4.62E-02	2.56E-03	1.96E-04	1.57E-05	9.71E-07	3.08E-08
5.52E-01	6.10	5.52E-01	3.07E-02	2.30E-03	1.92E-04	1.57E-05	9.70E-07	3.08E-08
49202.60	6.10	1.09E 00	4.66E-02	2.57E-03	1.97E-04	1.57E-05	9.74E-07	3.10E-08
5.58E-01		5.58E-01	3.09E-02	2.31E-03	1.92E-04	1.57E-05	9.73E-07	3.10E-08

50009.20	6.20	1.10E-00	4.49E-02	2.58E-03	1.97E-04	1.58E-05	9.77E-07	3.11E-08	4.22E-10
50045.80	6.30	5.64E-01	3.11E-02	2.32E-03	1.93E-04	1.57E-05	9.76E-07	3.11E-08	4.22E-10
51622.40	6.40	1.11E-00	4.71E-02	2.60E-03	1.98E-04	1.58E-05	9.80E-07	3.11E-08	4.24E-10
52429.00	6.50	3.69E-01	3.15E-02	2.33E-03	1.94E-04	1.58E-05	9.79E-07	3.11E-08	4.24E-10
53235.60	6.60	1.12E-00	4.78E-02	2.61E-03	1.99E-04	1.59E-05	9.83E-07	3.12E-08	4.25E-10
54042.20	6.70	3.74E-01	3.19E-02	2.34E-03	1.94E-04	1.59E-05	9.81E-07	3.12E-08	4.25E-10
54848.80	6.80	1.13E-00	4.77E-02	2.62E-03	1.99E-04	1.59E-05	9.85E-07	3.13E-08	4.26E-10
55655.40	6.90	3.78E-01	3.12E-02	2.35E-03	1.95E-04	1.59E-05	9.84E-07	3.13E-08	4.26E-10
56462.00	7.00	1.14E-00	3.80E-02	2.62E-03	2.00E-04	1.60E-05	9.87E-07	3.14E-08	4.27E-10
57268.60	7.10	3.83E-01	3.18E-02	2.36E-03	1.95E-04	1.60E-05	9.86E-07	3.14E-08	4.27E-10
58075.20	7.20	1.15E-00	4.85E-02	2.64E-03	2.01E-04	1.60E-05	9.89E-07	3.15E-08	4.28E-10
58881.80	7.30	3.91E-01	3.21E-02	2.37E-03	1.96E-04	1.60E-05	9.92E-07	3.15E-08	4.29E-10
59688.40	7.40	1.16E-00	4.87E-02	2.65E-03	2.01E-04	1.60E-05	9.93E-07	3.16E-08	4.30E-10
60495.00	7.50	3.95E-01	3.23E-02	2.38E-03	1.96E-04	1.60E-05	9.95E-07	3.16E-08	4.31E-10
61301.60	7.60	1.17E-00	4.90E-02	2.66E-03	2.01E-04	1.60E-05	9.94E-07	3.16E-08	4.31E-10
62108.20	7.70	3.98E-01	3.24E-02	2.38E-03	1.97E-04	1.60E-05	9.97E-07	3.17E-08	4.32E-10
62914.80	7.80	1.18E-00	4.92E-02	2.68E-03	2.02E-04	1.61E-05	9.99E-07	3.18E-08	4.33E-10
63721.40	7.90	3.25E-01	3.25E-02	2.40E-03	1.98E-04	1.61E-05	1.00E-06	3.18E-08	4.34E-10
64528.00	8.00	1.20E-00	4.95E-02	2.69E-03	2.03E-04	1.61E-05	1.00E-06	3.19E-08	4.34E-10
65334.60	8.10	6.12E-01	3.29E-02	2.41E-03	1.98E-04	1.61E-05	1.00E-06	3.19E-08	4.35E-10
66141.20	8.20	1.21E-00	5.00E-02	2.70E-03	2.03E-04	1.61E-05	1.00E-06	3.19E-08	4.35E-10
66947.80	8.30	6.14E-01	3.30E-02	2.41E-03	1.99E-04	1.61E-05	1.00E-06	3.19E-08	4.35E-10
67754.40	8.40	1.21E-00	5.04E-02	2.70E-03	2.04E-04	1.62E-05	1.00E-06	3.20E-08	4.36E-10
68561.00	8.50	6.18E-01	3.32E-02	2.42E-03	1.99E-04	1.62E-05	1.00E-06	3.20E-08	4.36E-10
69367.60	8.60	1.22E-00	5.05E-02	2.71E-03	2.04E-04	1.62E-05	1.01E-06	3.20E-08	4.36E-10
		6.20E-01	3.32E-02	2.42E-03	1.99E-04	1.62E-05	1.00E-06	3.20E-08	4.36E-10
		1.22E-00	5.07E-02	2.71E-03	2.04E-04	1.62E-05	1.01E-06	3.20E-08	4.36E-10
		6.21E-01	3.33E-02	2.42E-03	1.99E-04	1.62E-05	1.01E-06	3.20E-08	4.36E-10
		1.23E-00	5.08E-02	2.71E-03	2.04E-04	1.63E-05	1.01E-06	3.21E-08	4.37E-10
		6.23E-01	3.33E-02	2.43E-03	2.00E-04	1.63E-05	1.01E-06	3.21E-08	4.37E-10
		1.23E-00	5.11E-02	2.72E-03	2.04E-04	1.63E-05	1.01E-06	3.21E-08	4.37E-10
		6.24E-01	3.34E-02	2.43E-03	2.00E-04	1.63E-05	1.01E-06	3.21E-08	4.37E-10
		1.24E-00	5.12E-02	2.72E-03	2.05E-04	1.63E-05	1.01E-06	3.21E-08	4.37E-10
		6.26E-01	3.34E-02	2.43E-03	2.00E-04	1.62E-05	1.01E-06	3.21E-08	4.37E-10
		1.24E-00	5.14E-02	2.73E-03	2.05E-04	1.63E-05	1.01E-06	3.21E-08	4.38E-10
		6.27E-01	3.35E-02	2.43E-03	2.00E-04	1.62E-05	1.01E-06	3.21E-08	4.38E-10
		1.25E-00	5.16E-02	2.73E-03	2.05E-04	1.63E-05	1.01E-06	3.22E-08	4.38E-10
		6.28E-01	3.35E-02	2.44E-03	2.00E-04	1.62E-05	1.01E-06	3.22E-08	4.38E-10
		1.26E-00	5.18E-02	2.73E-03	2.05E-04	1.63E-05	1.01E-06	3.22E-08	4.38E-10
		6.29E-01	3.36E-02	2.44E-03	2.00E-04	1.62E-05	1.01E-06	3.22E-08	4.38E-10

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR 11000°K

Wave Number (cm ⁻¹)	Photon Energy (eV)	1.0E-01	1.0E-00	1.0E-01	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
70174.20	6.70	1.26E-00	5.20E-02	2.74E-03	2.05E-04	1.63E-05	1.01E-06	3.22E-08	4.39E-10
70980.80	6.30	6.30E-01	3.36E-02	2.44E-03	2.00E-04	1.63E-05	1.01E-06	3.22E-08	4.39E-10
71787.40	6.90	1.27E-00	5.25E-02	2.74E-03	2.05E-04	1.64E-05	1.01E-06	3.22E-08	4.39E-10
72594.00	6.00	6.31E-01	3.37E-02	2.44E-03	2.01E-04	1.63E-05	1.01E-06	3.22E-08	4.39E-10
73400.60	9.10	6.32E-01	3.37E-02	2.44E-03	2.01E-04	1.63E-05	1.01E-06	3.22E-08	4.39E-10
74207.20	9.20	1.28E-00	5.25E-02	2.74E-03	2.05E-04	1.64E-05	1.01E-06	3.22E-08	4.39E-10
75013.80	9.30	6.33E-01	3.37E-02	2.44E-03	2.01E-04	1.63E-05	1.01E-06	3.22E-08	4.39E-10
75820.40	9.40	1.29E-00	5.25E-02	2.74E-03	2.05E-04	1.64E-05	1.01E-06	3.22E-08	4.39E-10
76627.00	9.50	6.34E-01	3.37E-02	2.44E-03	2.01E-04	1.63E-05	1.01E-06	3.22E-08	4.39E-10
77433.60	9.60	1.30E-00	5.25E-02	2.74E-03	2.05E-04	1.64E-05	1.01E-06	3.22E-08	4.39E-10
78240.20	9.70	6.35E-01	3.37E-02	2.44E-03	2.01E-04	1.63E-05	1.01E-06	3.22E-08	4.39E-10
79046.80	9.80	1.31E-00	5.25E-02	2.74E-03	2.05E-04	1.64E-05	1.01E-06	3.22E-08	4.39E-10
79853.40	9.90	6.36E-01	3.37E-02	2.44E-03	2.01E-04	1.63E-05	1.01E-06	3.22E-08	4.39E-10
80660.00	10.00	1.32E-00	5.25E-02	2.74E-03	2.05E-04	1.64E-05	1.01E-06	3.22E-08	4.39E-10
81466.60	10.10	6.37E-01	3.37E-02	2.44E-03	2.01E-04	1.63E-05	1.01E-06	3.22E-08	4.39E-10
82273.20	10.20	1.33E-00	5.25E-02	2.74E-03	2.05E-04	1.64E-05	1.01E-06	3.22E-08	4.39E-10
83079.80	10.30	6.38E-01	3.37E-02	2.44E-03	2.01E-04	1.63E-05	1.01E-06	3.22E-08	4.39E-10
83886.40	10.40	1.34E-00	5.25E-02	2.74E-03	2.05E-04	1.64E-05	1.01E-06	3.22E-08	4.39E-10
84693.00	10.50	6.39E-01	3.37E-02	2.44E-03	2.01E-04	1.63E-05	1.01E-06	3.22E-08	4.39E-10
85499.60	10.60	1.35E-00	5.25E-02	2.74E-03	2.05E-04	1.64E-05	1.01E-06	3.22E-08	4.39E-10
86306.20	10.70	6.40E-01	3.37E-02	2.44E-03	2.01E-04	1.63E-05	1.01E-06	3.22E-08	4.39E-10
87112.80	10.80	1.36E-00	5.25E-02	2.74E-03	2.05E-04	1.64E-05	1.01E-06	3.22E-08	4.39E-10
87919.40	10.90	6.41E-01	3.37E-02	2.44E-03	2.01E-04	1.63E-05	1.01E-06	3.22E-08	4.39E-10
88726.00	11.00	1.37E-00	5.25E-02	2.74E-03	2.05E-04	1.64E-05	1.01E-06	3.22E-08	4.39E-10

90742.50	11.25	1.49E 00	7.10E-02	4.47E-03	3.13E-04	2.56E-05	1.60E-06	5.04E-08	6.89E-10
		7.25E-01	4.86E-02	4.15E-03	3.07E-04	2.55E-05	1.60E-06	5.04E-08	6.89E-10
92759.00	11.50	1.51E 00	7.43E-02	4.84E-03	3.49E-04	2.87E-05	1.30E-06	5.67E-08	7.76E-10
		7.44E-01	5.20E-02	4.50E-03	3.44E-04	2.87E-05	1.30E-06	5.67E-08	7.76E-10
94775.50	11.75	1.53E 00	7.70E-02	5.15E-03	3.79E-04	3.13E-05	1.07E-06	4.18E-08	8.46E-10
		7.60E-01	5.47E-02	4.80E-03	3.74E-04	3.12E-05	1.07E-06	4.18E-08	8.46E-10
96792.00	12.00	1.59E 00	8.88E-02	6.49E-03	5.09E-04	4.26E-05	2.10E-06	6.60E-08	9.03E-10
		8.29E-01	6.85E-02	6.14E-03	5.04E-04	4.25E-05	2.10E-06	6.60E-08	9.03E-10
98808.50	12.25	1.65E 00	9.85E-02	7.59E-03	6.16E-04	5.18E-05	2.49E-06	8.42E-08	1.14E-09
		8.85E-01	7.61E-02	7.24E-03	6.10E-04	5.17E-05	2.49E-06	8.42E-08	1.14E-09
100825.00	12.50	1.70E 00	1.04E-01	8.48E-03	7.02E-04	5.33E-05	3.17E-06	9.90E-08	1.36E-09
		9.31E-01	8.40E-02	8.15E-03	6.97E-04	5.32E-05	3.17E-06	9.90E-08	1.36E-09
102841.50	12.75	1.74E 00	1.13E-01	9.26E-03	7.78E-04	6.39E-05	3.59E-06	1.11E-07	1.52E-09
		9.71E-01	9.09E-02	8.91E-03	7.73E-04	6.37E-05	3.59E-06	1.11E-07	1.52E-09
104858.00	13.00	1.77E 00	1.19E-01	9.89E-03	8.40E-04	7.12E-05	3.93E-06	1.22E-07	1.67E-09
		1.00E 00	9.85E-02	9.55E-03	8.35E-04	7.11E-05	3.93E-06	1.22E-07	1.67E-09
106874.50	13.25	1.80E 00	1.23E-01	1.04E-02	8.96E-04	7.93E-05	4.20E-06	1.30E-07	1.75E-09
		1.03E 00	1.01E-01	1.01E-02	8.85E-04	7.54E-05	4.20E-06	1.30E-07	1.75E-09
108891.00	13.50	1.85E 00	1.30E-01	1.11E-02	9.61E-04	8.10E-05	4.63E-06	1.37E-07	1.88E-09
		1.08E 00	1.08E-01	1.08E-02	9.55E-04	8.17E-05	4.63E-06	1.37E-07	1.88E-09
110907.50	13.75	1.89E 00	1.36E-01	1.17E-02	1.02E-03	8.69E-05	4.98E-06	1.49E-07	2.05E-09
		1.12E 00	1.33E-01	1.14E-02	1.01E-03	8.68E-05	4.97E-06	1.49E-07	2.05E-09
112924.00	14.00	1.93E 00	1.41E-01	1.24E-02	1.08E-03	9.22E-05	5.33E-06	1.61E-07	2.19E-09
		1.16E 00	1.19E-01	1.20E-02	1.07E-03	9.21E-05	5.33E-06	1.61E-07	2.19E-09
114940.50	14.25	1.96E 00	1.46E-01	1.28E-02	1.13E-03	9.66E-05	5.63E-06	1.71E-07	2.33E-09
		1.20E 00	1.24E-01	1.25E-02	1.12E-03	9.65E-05	5.62E-06	1.71E-07	2.33E-09
116957.00	14.50	2.03E 00	1.57E-01	1.41E-02	1.25E-03	1.07E-04	6.32E-06	1.93E-07	2.44E-09
		1.27E 00	1.35E-01	1.38E-02	1.25E-03	1.07E-04	6.31E-06	1.93E-07	2.44E-09
118973.50	14.75	2.09E 00	1.67E-01	1.52E-02	1.35E-03	1.16E-04	6.88E-06	2.11E-07	2.59E-09
		1.33E 00	1.44E-01	1.48E-02	1.35E-03	1.16E-04	6.88E-06	2.11E-07	2.59E-09
120990.00	15.00	2.14E 00	1.75E-01	1.60E-02	1.44E-03	1.23E-04	7.35E-06	2.26E-07	2.90E-09
		1.38E 00	1.52E-01	1.57E-02	1.43E-03	1.23E-04	7.35E-06	2.26E-07	2.90E-09
123006.50	15.25	2.18E 00	1.81E-01	1.67E-02	1.50E-03	1.29E-04	7.74E-06	2.38E-07	3.07E-09
		1.42E 00	1.58E-01	1.64E-02	1.50E-03	1.29E-04	7.73E-06	2.38E-07	3.07E-09
125023.00	15.50	2.21E 00	1.86E-01	1.73E-02	1.56E-03	1.34E-04	8.05E-06	2.48E-07	3.21E-09
		1.45E 00	1.64E-01	1.68E-02	1.55E-03	1.34E-04	8.05E-06	2.48E-07	3.21E-09
127039.50	15.75	2.24E 00	1.90E-01	1.78E-02	1.60E-03	1.38E-04	8.30E-06	2.56E-07	3.33E-09
		1.47E 00	1.68E-01	1.74E-02	1.60E-03	1.38E-04	8.30E-06	2.56E-07	3.33E-09
129055.00	16.00	2.26E 00	1.93E-01	1.81E-02	1.63E-03	1.41E-04	8.50E-06	2.62E-07	3.42E-09
		1.49E 00	1.71E-01	1.78E-02	1.63E-03	1.41E-04	8.50E-06	2.62E-07	3.42E-09
131072.50	16.25	2.28E 00	1.96E-01	1.84E-02	1.66E-03	1.43E-04	8.67E-06	2.68E-07	3.49E-09
		1.51E 00	1.74E-01	1.81E-02	1.66E-03	1.43E-04	8.67E-06	2.68E-07	3.49E-09
133089.00	16.50	2.29E 00	1.98E-01	1.87E-02	1.69E-03	1.45E-04	8.80E-06	2.72E-07	3.55E-09
		1.53E 00	1.76E-01	1.83E-02	1.69E-03	1.45E-04	8.80E-06	2.72E-07	3.55E-09
135105.50	16.75	2.30E 00	2.00E-01	1.89E-02	1.71E-03	1.47E-04	8.90E-06	2.75E-07	3.60E-09
		1.54E 00	1.78E-01	1.85E-02	1.71E-03	1.47E-04	8.90E-06	2.75E-07	3.60E-09
137122.00	17.00	2.31E 00	2.01E-01	1.90E-02	1.73E-03	1.48E-04	9.00E-06	2.78E-07	3.64E-09
		1.55E 00	1.79E-01	1.87E-02	1.72E-03	1.48E-04	9.00E-06	2.78E-07	3.64E-09
139138.50	17.25	2.32E 00	2.03E-01	1.92E-02	1.74E-03	1.50E-04	9.07E-06	2.80E-07	3.67E-09
		1.55E 00	1.80E-01	1.88E-02	1.73E-03	1.49E-04	9.07E-06	2.80E-07	3.67E-09

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 11600° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal									
		1.0E 01	1.0E 00	1.0E-01	10.0E-01	10.0E-02	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
141155.00	17.50	2.33E 00	2.04E-01	1.93E-02	1.75E-03	1.50E-04	9.13E-06	2.82E-07	3.70E-09	3.70E-09	3.70E-09
141165.00	17.50	1.96E 00	1.81E-01	1.89E-02	1.74E-03	1.50E-04	9.12E-06	2.82E-07	3.70E-09	3.70E-09	3.70E-09
143171.50	17.75	2.33E 00	2.04E-01	1.93E-02	1.76E-03	1.51E-04	9.17E-06	2.84E-07	3.72E-09	3.72E-09	3.72E-09
145188.00	18.00	1.57E 00	1.62E-01	1.90E-02	1.75E-03	1.51E-04	9.17E-06	2.84E-07	3.72E-09	3.72E-09	3.72E-09
147204.50	18.25	2.34E 00	2.05E-01	1.94E-02	1.76E-03	1.52E-04	9.21E-06	2.85E-07	3.73E-09	3.73E-09	3.73E-09
149221.00	18.50	1.57E 00	1.63E-01	1.91E-02	1.76E-03	1.52E-04	9.24E-06	2.86E-07	3.75E-09	3.75E-09	3.75E-09
149231.00	18.50	2.34E 00	2.06E-01	1.95E-02	1.77E-03	1.52E-04	9.26E-06	2.87E-07	3.76E-09	3.76E-09	3.76E-09
151237.50	18.75	1.58E 00	1.83E-01	1.92E-02	1.77E-03	1.52E-04	9.25E-06	2.87E-07	3.76E-09	3.76E-09	3.76E-09
151237.50	18.75	2.34E 00	2.06E-01	1.95E-02	1.78E-03	1.53E-04	9.28E-06	2.87E-07	3.77E-09	3.77E-09	3.77E-09
153254.00	19.00	1.58E 00	1.84E-01	1.92E-02	1.77E-03	1.53E-04	9.28E-06	2.87E-07	3.77E-09	3.77E-09	3.77E-09
153254.00	19.00	2.35E 00	2.06E-01	1.96E-02	1.78E-03	1.53E-04	9.30E-06	2.88E-07	3.77E-09	3.77E-09	3.77E-09
155270.50	19.25	1.58E 00	1.84E-01	1.92E-02	1.77E-03	1.53E-04	9.30E-06	2.88E-07	3.77E-09	3.77E-09	3.77E-09
155270.50	19.25	2.35E 00	2.07E-01	1.96E-02	1.78E-03	1.53E-04	9.31E-06	2.88E-07	3.78E-09	3.78E-09	3.78E-09
157287.00	19.50	1.58E 00	1.84E-01	1.92E-02	1.78E-03	1.53E-04	9.31E-06	2.88E-07	3.78E-09	3.78E-09	3.78E-09
157287.00	19.50	2.35E 00	2.07E-01	1.96E-02	1.78E-03	1.53E-04	9.32E-06	2.89E-07	3.78E-09	3.78E-09	3.78E-09
159303.50	19.75	1.58E 00	1.84E-01	1.93E-02	1.78E-03	1.53E-04	9.32E-06	2.89E-07	3.78E-09	3.78E-09	3.78E-09
159303.50	19.75	2.35E 00	2.07E-01	1.96E-02	1.78E-03	1.53E-04	9.33E-06	2.89E-07	3.79E-09	3.79E-09	3.79E-09
161320.00	20.00	1.58E 00	1.84E-01	1.93E-02	1.78E-03	1.53E-04	9.32E-06	2.89E-07	3.79E-09	3.79E-09	3.79E-09
161320.00	20.00	2.35E 00	2.07E-01	1.96E-02	1.79E-03	1.54E-04	9.33E-06	2.89E-07	3.79E-09	3.79E-09	3.79E-09
163336.50	20.25	1.58E 00	1.85E-01	1.93E-02	1.78E-03	1.53E-04	9.33E-06	2.89E-07	3.79E-09	3.79E-09	3.79E-09
163336.50	20.25	2.35E 00	2.07E-01	1.96E-02	1.79E-03	1.54E-04	9.34E-06	2.89E-07	3.79E-09	3.79E-09	3.79E-09
165353.00	20.50	1.59E 00	1.85E-01	1.93E-02	1.79E-03	1.54E-04	9.34E-06	2.89E-07	3.79E-09	3.79E-09	3.79E-09
165353.00	20.50	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.34E-06	2.89E-07	3.79E-09	3.79E-09	3.79E-09
167369.50	20.75	1.59E 00	1.85E-01	1.93E-02	1.79E-03	1.54E-04	9.34E-06	2.89E-07	3.79E-09	3.79E-09	3.79E-09
167369.50	20.75	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.35E-06	2.89E-07	3.80E-09	3.80E-09	3.80E-09
169386.00	21.00	1.59E 00	1.85E-01	1.93E-02	1.78E-03	1.54E-04	9.34E-06	2.89E-07	3.80E-09	3.80E-09	3.80E-09
169386.00	21.00	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.35E-06	2.90E-07	3.80E-09	3.80E-09	3.80E-09
171402.50	21.25	1.59E 00	1.85E-01	1.93E-02	1.79E-03	1.54E-04	9.35E-06	2.90E-07	3.80E-09	3.80E-09	3.80E-09
171402.50	21.25	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.35E-06	2.90E-07	3.80E-09	3.80E-09	3.80E-09
173419.00	21.50	1.59E 00	1.85E-01	1.93E-02	1.78E-03	1.54E-04	9.35E-06	2.90E-07	3.80E-09	3.80E-09	3.80E-09
173419.00	21.50	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.35E-06	2.90E-07	3.80E-09	3.80E-09	3.80E-09
175435.50	21.75	1.59E 00	1.85E-01	1.93E-02	1.79E-03	1.54E-04	9.35E-06	2.90E-07	3.80E-09	3.80E-09	3.80E-09
175435.50	21.75	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.35E-06	2.90E-07	3.80E-09	3.80E-09	3.80E-09
177452.00	22.00	1.59E 00	1.85E-01	1.93E-02	1.78E-03	1.54E-04	9.35E-06	2.90E-07	3.80E-09	3.80E-09	3.80E-09
177452.00	22.00	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.35E-06	2.90E-07	3.80E-09	3.80E-09	3.80E-09
179468.50	22.25	1.59E 00	1.85E-01	1.93E-02	1.79E-03	1.54E-04	9.35E-06	2.90E-07	3.80E-09	3.80E-09	3.80E-09
179468.50	22.25	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.36E-06	2.90E-07	3.80E-09	3.80E-09	3.80E-09
181485.00	22.50	1.59E 00	1.85E-01	1.93E-02	1.78E-03	1.54E-04	9.36E-06	2.90E-07	3.80E-09	3.80E-09	3.80E-09
181485.00	22.50	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.36E-06	2.90E-07	3.80E-09	3.80E-09	3.80E-09
183501.50	22.75	1.59E 00	1.85E-01	1.93E-02	1.78E-03	1.54E-04	9.36E-06	2.90E-07	3.80E-09	3.80E-09	3.80E-09
183501.50	22.75	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.36E-06	2.90E-07	3.80E-09	3.80E-09	3.80E-09
		1.59E 00	1.85E-01	1.93E-02	1.78E-03	1.54E-04	9.36E-06	2.90E-07	3.80E-09	3.80E-09	3.80E-09

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 12000°K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density x Normal						
		1.0E 01	1.0E 00	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05
4939.60	0.60	1.68E-02	1.83E-03	1.83E-04	1.68E-05	1.15E-06	5.18E-08	9.62E-10
5646.20	0.70	1.68E-02	1.83E-03	1.63E-04	1.68E-05	1.15E-06	5.18E-08	9.62E-10
6452.80	0.80	3.47E-02	3.83E-03	3.83E-04	3.52E-05	2.54E-06	1.07E-07	1.98E-09
7259.40	0.90	5.45E-02	6.01E-03	6.01E-04	5.52E-05	4.06E-06	1.74E-07	3.24E-09
8066.00	1.00	5.30E-02	5.98E-03	6.01E-04	5.52E-05	4.06E-06	1.74E-07	3.24E-09
8872.60	1.10	7.69E-02	8.33E-03	8.30E-04	7.62E-05	5.65E-06	2.46E-07	4.54E-09
9679.20	1.20	7.21E-02	8.24E-03	8.29E-04	7.61E-05	5.65E-06	2.46E-07	4.54E-09
10485.80	1.30	1.01E-01	1.09E-02	1.07E-03	9.78E-05	7.26E-06	3.19E-07	5.89E-09
11292.40	1.40	9.14E-02	1.06E-02	1.06E-03	9.78E-05	7.26E-06	3.19E-07	5.89E-09
12099.00	1.50	1.27E-01	1.32E-02	1.30E-03	1.19E-04	8.88E-06	3.91E-07	7.20E-09
12905.60	1.60	1.10E-01	1.28E-02	1.29E-03	1.19E-04	8.88E-06	3.91E-07	7.20E-09
13712.20	1.70	1.53E-01	1.59E-02	1.52E-03	1.39E-04	1.04E-05	4.59E-07	8.43E-09
14518.80	1.80	1.28E-01	1.50E-02	1.51E-03	1.39E-04	1.04E-05	4.59E-07	8.43E-09
15325.40	1.90	1.82E-01	1.80E-02	1.76E-03	1.61E-04	1.17E-05	5.18E-07	9.52E-09
16132.00	2.00	1.47E-01	1.75E-02	1.75E-03	1.61E-04	1.17E-05	5.18E-07	9.52E-09
16938.60	2.10	2.15E-01	2.09E-02	1.98E-03	1.81E-04	1.31E-05	5.66E-07	1.04E-08
17745.20	2.20	1.64E-01	1.94E-02	1.97E-03	1.81E-04	1.31E-05	5.66E-07	1.04E-08
18551.80	2.30	2.50E-01	2.28E-02	2.10E-03	1.99E-04	1.45E-05	6.25E-07	1.15E-08
19358.40	2.40	1.81E-01	2.14E-02	2.17E-03	1.99E-04	1.45E-05	6.25E-07	1.15E-08
20165.00	2.50	2.84E-01	2.50E-02	2.36E-03	2.15E-04	1.57E-05	6.79E-07	1.25E-08
20971.60	2.60	1.99E-01	2.33E-02	2.34E-03	2.15E-04	1.57E-05	6.79E-07	1.25E-08
21778.20	2.70	3.24E-01	2.72E-02	2.53E-03	2.30E-04	1.68E-05	7.30E-07	1.35E-08
		2.18E-01	2.51E-02	2.51E-03	2.30E-04	1.68E-05	7.30E-07	1.35E-08
		3.66E-01	2.93E-02	2.69E-03	2.44E-04	1.79E-05	7.76E-07	1.43E-08
		2.37E-01	2.67E-02	2.66E-03	2.44E-04	1.79E-05	7.76E-07	1.43E-08
		4.12E-01	3.14E-02	2.84E-03	2.56E-04	1.88E-05	8.18E-07	1.51E-08
		2.55E-01	2.82E-02	2.80E-03	2.56E-04	1.88E-05	8.18E-07	1.51E-08
		4.49E-01	3.33E-02	2.97E-03	2.68E-04	1.96E-05	8.56E-07	1.58E-08
		2.73E-01	2.97E-02	2.93E-03	2.68E-04	1.96E-05	8.56E-07	1.58E-08
		4.78E-01	3.49E-02	3.09E-03	2.78E-04	2.04E-05	8.91E-07	1.65E-08
		2.91E-01	3.11E-02	3.05E-03	2.78E-04	2.04E-05	8.91E-07	1.65E-08
		5.05E-01	3.64E-02	3.21E-03	2.88E-04	2.11E-05	9.23E-07	1.70E-08
		3.09E-01	3.24E-02	3.16E-03	2.88E-04	2.11E-05	9.23E-07	1.70E-08
		5.26E-01	3.77E-02	3.31E-03	2.96E-04	2.18E-05	9.51E-07	1.76E-08
		3.26E-01	3.36E-02	3.26E-03	2.96E-04	2.18E-05	9.51E-07	1.76E-08
		5.46E-01	3.91E-02	3.43E-03	3.07E-04	2.23E-05	9.75E-07	1.80E-08
		3.44E-01	3.50E-02	3.38E-03	3.07E-04	2.23E-05	9.75E-07	1.80E-08
		5.64E-01	4.04E-02	3.54E-03	3.16E-04	2.30E-05	9.96E-07	1.84E-08
		3.63E-01	3.63E-02	3.49E-03	3.16E-04	2.30E-05	9.96E-07	1.84E-08
		5.83E-01	4.18E-02	3.64E-03	3.25E-04	2.37E-05	1.02E-06	1.89E-08
		3.81E-01	3.76E-02	3.60E-03	3.25E-04	2.37E-05	1.02E-06	1.89E-08
		6.04E-01	4.31E-02	3.75E-03	3.34E-04	2.43E-05	1.05E-06	1.94E-08
		3.99E-01	3.89E-02	3.70E-03	3.34E-04	2.43E-05	1.05E-06	1.94E-08

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 1200° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density x Normal					
		1.0E-01	1.0E-00	1.0E-01	10.0E-03	10.0E-04	10.0E-05
22584.80	2.80	6.24E-01	4.44E-02	3.85E-03	3.42E-04	2.49E-05	1.99E-06
23391.40	2.90	4.17E-01	4.01E-02	3.80E-03	3.42E-04	2.49E-05	1.99E-06
24198.00	3.00	6.45E-01	4.57E-02	3.94E-03	3.50E-04	2.55E-05	2.03E-06
25004.60	3.10	4.35E-01	4.12E-02	3.89E-03	3.49E-04	2.55E-05	2.03E-06
25811.20	3.20	6.69E-01	4.71E-02	4.04E-03	3.57E-04	2.60E-05	2.08E-06
26617.80	3.30	4.52E-01	4.23E-02	3.97E-03	3.56E-04	2.60E-05	2.08E-06
27424.40	3.40	6.92E-01	4.83E-02	4.12E-03	3.64E-04	2.65E-05	2.12E-06
28231.00	3.50	4.68E-01	4.34E-02	4.05E-03	3.63E-04	2.65E-05	2.12E-06
29037.60	3.60	7.23E-01	4.99E-02	4.21E-03	3.70E-04	2.70E-05	2.16E-06
29844.20	3.70	4.84E-01	4.43E-02	4.13E-03	3.69E-04	2.70E-05	2.16E-06
30650.80	3.80	7.54E-01	5.13E-02	4.29E-03	3.74E-04	2.75E-05	2.19E-06
31457.40	3.90	5.00E-01	4.53E-02	4.19E-03	3.73E-04	2.75E-05	2.19E-06
32264.00	4.00	7.80E-01	5.24E-02	4.35E-03	3.81E-04	2.77E-05	2.22E-06
33070.60	4.10	5.15E-01	4.61E-02	4.25E-03	3.79E-04	2.77E-05	2.22E-06
33877.20	4.20	8.29E-01	5.43E-02	4.44E-03	3.86E-04	2.81E-05	2.25E-06
34683.80	4.30	5.38E-01	4.72E-02	4.32E-03	3.84E-04	2.80E-05	2.25E-06
35490.40	4.40	8.69E-01	5.58E-02	4.51E-03	3.91E-04	2.84E-05	2.27E-06
36297.00	4.50	5.62E-01	4.83E-02	4.38E-03	3.89E-04	2.83E-05	2.27E-06
37103.60	4.60	9.15E-01	5.74E-02	4.58E-03	3.95E-04	2.84E-05	2.29E-06
37910.20	4.70	5.66E-01	4.94E-02	4.44E-03	3.93E-04	2.84E-05	2.29E-06
38716.80	4.80	9.60E-01	5.90E-02	4.65E-03	4.00E-04	2.89E-05	2.31E-06
39523.40	4.90	6.11E-01	5.05E-02	4.31E-03	3.97E-04	2.89E-05	2.31E-06
		9.98E-01	6.03E-02	4.72E-03	4.05E-04	2.92E-05	2.33E-06
		6.36E-01	5.16E-02	4.57E-03	4.02E-04	2.92E-05	2.33E-06
		1.05E-00	6.20E-02	4.79E-03	4.09E-04	2.92E-05	2.33E-06
		6.60E-01	5.27E-02	4.64E-03	4.07E-04	2.92E-05	2.33E-06
		1.08E-00	6.34E-02	4.87E-03	4.15E-04	2.92E-05	2.33E-06
		6.86E-01	5.40E-02	4.71E-03	4.12E-04	2.92E-05	2.33E-06
		1.12E-00	6.49E-02	4.94E-03	4.21E-04	3.02E-05	2.40E-06
		7.10E-01	5.51E-02	4.79E-03	4.18E-04	3.02E-05	2.40E-06
		1.15E-00	6.62E-02	5.02E-03	4.26E-04	3.02E-05	2.40E-06
		7.33E-01	5.63E-02	4.86E-03	4.23E-04	3.02E-05	2.40E-06
		1.18E-00	6.73E-02	5.06E-03	4.31E-04	3.02E-05	2.40E-06
		7.55E-01	5.73E-02	4.92E-03	4.28E-04	3.02E-05	2.40E-06
		1.21E-00	6.84E-02	5.15E-03	4.36E-04	3.12E-05	2.49E-06
		7.77E-01	5.84E-02	4.99E-03	4.33E-04	3.12E-05	2.49E-06
		1.23E-00	6.95E-02	5.21E-03	4.40E-04	3.12E-05	2.49E-06
		7.97E-01	5.93E-02	5.05E-03	4.37E-04	3.12E-05	2.49E-06
		1.26E-00	7.05E-02	5.26E-03	4.44E-04	3.12E-05	2.49E-06
		8.17E-01	6.03E-02	5.10E-03	4.41E-04	3.12E-05	2.49E-06
		1.28E-00	7.14E-02	5.32E-03	4.48E-04	3.21E-05	2.57E-06
		8.38E-01	6.11E-02	5.15E-03	4.37E-04	3.21E-05	2.57E-06
		1.31E-00	7.23E-02	5.37E-03	4.51E-04	3.21E-05	2.57E-06
		8.54E-01	6.20E-02	5.20E-03	4.49E-04	3.21E-05	2.57E-06

40330.00	5.00	1.33E 00	7.32E-02	5.41E-03	4.55E-04	3.26E-05	1.42E-06	2.62E-08	2.43E-10
		8.71E-01	6.28E-02	5.29E-03	4.52E-04	3.26E-05	1.42E-06	2.61E-08	2.43E-10
41135.50	5.10	1.35E 00	7.41E-02	5.46E-03	4.58E-04	3.29E-05	1.43E-06	2.64E-08	2.45E-10
		8.87E-01	6.35E-02	5.29E-03	4.55E-04	3.28E-05	1.43E-06	2.63E-08	2.45E-10
41943.20	5.20	1.37E 00	7.48E-02	5.50E-03	4.61E-04	3.31E-05	1.44E-06	2.65E-08	2.47E-10
		9.03E-01	6.42E-02	5.34E-03	4.58E-04	3.30E-05	1.44E-06	2.65E-08	2.47E-10
42749.80	5.30	1.39E 00	7.56E-02	5.54E-03	4.64E-04	3.33E-05	1.45E-06	2.67E-08	2.49E-10
		9.10E-01	6.49E-02	5.38E-03	4.61E-04	3.32E-05	1.45E-06	2.67E-08	2.49E-10
43556.40	5.40	1.41E 00	7.63E-02	5.58E-03	4.67E-04	3.35E-05	1.46E-06	2.69E-08	2.51E-10
		9.32E-01	6.55E-02	5.41E-03	4.64E-04	3.34E-05	1.46E-06	2.69E-08	2.51E-10
44363.00	5.50	1.43E 00	7.70E-02	5.62E-03	4.69E-04	3.36E-05	1.47E-06	2.70E-08	2.53E-10
		9.45E-01	6.61E-02	5.45E-03	4.66E-04	3.36E-05	1.47E-06	2.70E-08	2.53E-10
45169.60	5.60	1.45E 00	7.77E-02	5.65E-03	4.72E-04	3.38E-05	1.47E-06	2.72E-08	2.55E-10
		9.58E-01	6.67E-02	5.48E-03	4.69E-04	3.38E-05	1.47E-06	2.72E-08	2.55E-10
45976.20	5.70	1.47E 00	7.83E-02	5.68E-03	4.74E-04	3.40E-05	1.48E-06	2.73E-08	2.56E-10
		9.71E-01	6.73E-02	5.51E-03	4.71E-04	3.39E-05	1.48E-06	2.73E-08	2.56E-10
46782.80	5.80	1.48E 00	7.89E-02	5.71E-03	4.76E-04	3.41E-05	1.49E-06	2.75E-08	2.58E-10
		9.84E-01	6.79E-02	5.54E-03	4.73E-04	3.41E-05	1.49E-06	2.75E-08	2.58E-10
47589.40	5.90	1.50E 00	7.95E-02	5.74E-03	4.78E-04	3.43E-05	1.49E-06	2.76E-08	2.59E-10
		9.97E-01	6.84E-02	5.57E-03	4.75E-04	3.42E-05	1.49E-06	2.76E-08	2.59E-10
48396.00	6.00	1.51E 00	8.01E-02	5.77E-03	4.80E-04	3.44E-05	1.50E-06	2.77E-08	2.60E-10
		1.01E 00	6.89E-02	5.60E-03	4.77E-04	3.43E-05	1.50E-06	2.77E-08	2.60E-10
49202.60	6.10	1.53E 00	8.07E-02	5.80E-03	4.82E-04	3.45E-05	1.51E-06	2.78E-08	2.62E-10
		1.02E 00	6.94E-02	5.63E-03	4.79E-04	3.45E-05	1.51E-06	2.78E-08	2.62E-10
50009.20	6.20	1.55E 00	8.12E-02	5.83E-03	4.84E-04	3.46E-05	1.51E-06	2.79E-08	2.63E-10
		1.03E 00	6.99E-02	5.65E-03	4.81E-04	3.46E-05	1.51E-06	2.79E-08	2.63E-10
50815.80	6.30	1.56E 00	8.17E-02	5.85E-03	4.85E-04	3.48E-05	1.52E-06	2.80E-08	2.64E-10
		1.04E 00	7.03E-02	5.68E-03	4.82E-04	3.47E-05	1.52E-06	2.80E-08	2.64E-10
51622.40	6.40	1.57E 00	8.22E-02	5.87E-03	4.87E-04	3.49E-05	1.52E-06	2.81E-08	2.65E-10
		1.05E 00	7.08E-02	5.70E-03	4.84E-04	3.50E-05	1.52E-06	2.81E-08	2.65E-10
52429.00	6.50	1.59E 00	8.27E-02	5.90E-03	4.88E-04	3.50E-05	1.52E-06	2.82E-08	2.66E-10
		1.06E 00	7.12E-02	5.72E-03	4.85E-04	3.49E-05	1.52E-06	2.82E-08	2.66E-10
53235.60	6.60	1.60E 00	8.31E-02	5.92E-03	4.89E-04	3.50E-05	1.52E-06	2.83E-08	2.67E-10
		1.07E 00	7.19E-02	5.74E-03	4.87E-04	3.50E-05	1.52E-06	2.83E-08	2.67E-10
54042.20	6.70	1.62E 00	8.36E-02	5.94E-03	4.91E-04	3.51E-05	1.52E-06	2.83E-08	2.68E-10
		1.08E 00	7.19E-02	5.76E-03	4.88E-04	3.51E-05	1.52E-06	2.83E-08	2.68E-10
54848.80	6.80	1.63E 00	8.40E-02	5.96E-03	4.92E-04	3.52E-05	1.52E-06	2.84E-08	2.69E-10
		1.08E 00	7.22E-02	5.78E-03	4.89E-04	3.52E-05	1.52E-06	2.84E-08	2.69E-10
55655.40	6.90	1.64E 00	8.44E-02	5.97E-03	4.93E-04	3.53E-05	1.52E-06	2.85E-08	2.70E-10
		1.09E 00	7.25E-02	5.80E-03	4.90E-04	3.53E-05	1.52E-06	2.85E-08	2.70E-10
56462.00	7.00	1.65E 00	8.47E-02	5.99E-03	4.94E-04	3.54E-05	1.52E-06	2.85E-08	2.71E-10
		1.10E 00	7.28E-02	5.81E-03	4.91E-04	3.53E-05	1.52E-06	2.85E-08	2.71E-10
57268.60	7.10	1.66E 00	8.51E-02	6.01E-03	4.95E-04	3.54E-05	1.52E-06	2.86E-08	2.72E-10
		1.10E 00	7.31E-02	5.83E-03	4.92E-04	3.54E-05	1.52E-06	2.86E-08	2.72E-10
58075.20	7.20	1.67E 00	8.54E-02	6.02E-03	4.95E-04	3.55E-05	1.52E-06	2.87E-08	2.73E-10
		1.11E 00	7.33E-02	5.84E-03	4.93E-04	3.55E-05	1.52E-06	2.87E-08	2.73E-10
58881.80	7.30	1.68E 00	8.57E-02	6.04E-03	4.97E-04	3.56E-05	1.52E-06	2.87E-08	2.74E-10
		1.12E 00	7.36E-02	5.85E-03	4.94E-04	3.56E-05	1.52E-06	2.87E-08	2.74E-10
59688.40	7.40	1.69E 00	8.60E-02	6.05E-03	4.98E-04	3.56E-05	1.52E-06	2.88E-08	2.75E-10
		1.12E 00	7.38E-02	5.87E-03	4.95E-04	3.56E-05	1.52E-06	2.88E-08	2.75E-10

78240.20	9.70	1.89E 00	9.18E-02	6.25E-03	5.10E-04	3.64E-05	1.59E-06	2.94E-08	3.20E-10
		1.10E 00	7.67E-02	6.03E-03	5.07E-04	3.64E-05	1.59E-06	2.94E-08	3.20E-10
79046.50	9.80	1.91E 00	9.21E-02	6.25E-03	5.11E-04	3.65E-05	1.59E-06	2.95E-08	3.20E-10
		1.19E 00	7.67E-02	6.04E-03	5.07E-04	3.64E-05	1.59E-06	2.95E-08	3.20E-10
79433.40	9.90	1.92E 00	9.23E-02	6.26E-03	5.11E-04	3.65E-05	1.59E-06	2.95E-08	3.20E-10
		1.19E 00	7.68E-02	6.04E-03	5.08E-04	3.64E-05	1.59E-06	2.95E-08	3.20E-10
80660.00	10.00	1.93E 00	9.26E-02	6.27E-03	5.11E-04	3.65E-05	1.60E-06	2.95E-08	3.21E-10
		1.19E 00	7.69E-02	6.05E-03	5.08E-04	3.65E-05	1.60E-06	2.95E-08	3.21E-10
81466.60	10.10	1.94E 00	9.28E-02	6.27E-03	5.12E-04	3.65E-05	1.60E-06	2.95E-08	3.21E-10
		1.19E 00	7.69E-02	6.05E-03	5.08E-04	3.65E-05	1.60E-06	2.95E-08	3.21E-10
82273.20	10.20	1.95E 00	9.31E-02	6.28E-03	5.12E-04	3.65E-05	1.60E-06	2.96E-08	3.21E-10
		1.19E 00	7.70E-02	6.06E-03	5.09E-04	3.65E-05	1.60E-06	2.96E-08	3.21E-10
83079.80	10.30	1.96E 00	9.33E-02	6.28E-03	5.12E-04	3.66E-05	1.60E-06	2.96E-08	3.21E-10
		1.19E 00	7.70E-02	6.06E-03	5.09E-04	3.65E-05	1.60E-06	2.96E-08	3.21E-10
83886.40	10.40	1.97E 00	9.36E-02	6.29E-03	5.13E-04	3.66E-05	1.60E-06	2.96E-08	3.21E-10
		1.19E 00	7.71E-02	6.06E-03	5.09E-04	3.65E-05	1.60E-06	2.96E-08	3.21E-10
84693.00	10.50	1.98E 00	9.38E-02	6.30E-03	5.13E-04	3.66E-05	1.60E-06	2.96E-08	3.22E-10
		1.19E 00	7.71E-02	6.07E-03	5.10E-04	3.66E-05	1.60E-06	2.96E-08	3.22E-10
85499.60	10.60	1.99E 00	9.40E-02	6.30E-03	5.13E-04	3.66E-05	1.60E-06	2.96E-08	3.22E-10
		1.19E 00	7.72E-02	6.07E-03	5.10E-04	3.66E-05	1.60E-06	2.96E-08	3.22E-10
86306.20	10.70	2.10E 00	1.07E-01	7.04E-03	6.36E-04	3.87E-05	1.60E-06	2.96E-08	3.22E-10
		1.20E 00	9.91E-02	7.40E-03	6.33E-04	3.86E-05	1.60E-06	2.96E-08	3.22E-10
88726.00	11.00	2.20E 00	1.22E-01	9.13E-03	7.73E-04	4.69E-05	2.05E-06	3.77E-08	4.12E-10
		1.39E 00	1.04E-01	8.09E-03	7.69E-04	4.69E-05	2.05E-06	3.77E-08	4.12E-10
90742.70	11.25	2.28E 00	1.33E-01	1.03E-02	8.77E-04	5.47E-05	2.39E-06	4.39E-08	4.80E-10
		1.46E 00	1.15E-01	1.00E-02	8.73E-04	5.44E-05	2.39E-06	4.39E-08	4.80E-10
92759.00	11.50	2.34E 00	1.42E-01	1.12E-02	9.63E-04	6.12E-05	2.68E-06	4.91E-08	5.37E-10
		1.53E 00	1.25E-01	1.10E-02	9.60E-04	6.12E-05	2.68E-06	4.91E-08	5.37E-10
94775.50	11.75	2.40E 00	1.49E-01	1.20E-02	1.04E-03	6.66E-05	2.91E-06	5.34E-08	5.85E-10
		1.58E 00	1.32E-01	1.18E-02	1.03E-03	6.66E-05	2.91E-06	5.34E-08	5.85E-10
96792.00	12.00	2.61E 00	1.81E-01	1.52E-02	1.33E-03	8.09E-05	3.11E-06	5.70E-08	6.25E-10
		1.80E 00	1.63E-01	1.50E-02	1.33E-03	8.08E-05	3.11E-06	5.70E-08	6.25E-10
98808.50	12.25	2.80E 00	2.07E-01	1.79E-02	1.58E-03	1.07E-04	3.93E-06	7.17E-08	7.87E-10
		1.98E 00	1.89E-01	1.77E-02	1.58E-03	1.07E-04	3.93E-06	7.17E-08	7.87E-10
100825.00	12.50	2.95E 00	2.28E-01	2.02E-02	1.79E-03	1.23E-04	4.60E-06	8.40E-08	9.23E-10
		2.13E 00	2.11E-01	1.99E-02	1.78E-03	1.23E-04	4.60E-06	8.40E-08	9.23E-10
102841.60	12.75	3.09E 00	2.48E-01	2.22E-02	1.97E-03	1.37E-04	5.21E-06	9.42E-08	1.04E-09
		2.27E 00	2.31E-01	2.20E-02	1.97E-03	1.37E-04	5.21E-06	9.42E-08	1.04E-09
104858.00	13.00	3.20E 00	2.64E-01	2.39E-02	2.13E-03	1.48E-04	5.72E-06	1.03E-07	1.14E-09
		2.39E 00	2.47E-01	2.38E-02	2.12E-03	1.48E-04	5.72E-06	1.03E-07	1.14E-09
106874.60	13.25	3.30E 00	2.77E-01	2.53E-02	2.26E-03	1.58E-04	6.14E-06	1.11E-07	1.22E-09
		2.48E 00	2.60E-01	2.50E-02	2.25E-03	1.58E-04	6.14E-06	1.11E-07	1.22E-09
108891.00	13.50	3.44E 00	2.96E-01	2.71E-02	2.43E-03	1.71E-04	6.77E-06	1.17E-07	1.29E-09
		2.63E 00	2.78E-01	2.69E-02	2.42E-03	1.71E-04	6.77E-06	1.17E-07	1.29E-09
110907.50	13.75	3.54E 00	3.11E-01	2.85E-02	2.57E-03	1.83E-04	7.31E-06	1.28E-07	1.41E-09
		2.75E 00	2.94E-01	2.84E-02	2.57E-03	1.83E-04	7.31E-06	1.28E-07	1.41E-09
112924.00	14.00	3.69E 00	3.27E-01	3.04E-02	2.73E-03	1.95E-04	7.67E-06	1.38E-07	1.50E-09
		2.88E 00	3.10E-01	3.03E-02	2.72E-03	1.95E-04	7.67E-06	1.38E-07	1.50E-09
114940.50	14.25	3.80E 00	3.41E-01	3.18E-02	2.86E-03	2.05E-04	8.34E-06	1.47E-07	1.60E-09
		2.98E 00	3.24E-01	3.15E-02	2.85E-03	2.05E-04	8.34E-06	1.47E-07	1.60E-09

PARTIAL PLANK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 1500° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density x Normal					
		1.0E 01	1.0E 00	1.0E -01	10.0E-03	10.0E-04	10.0E-05
118967.00	14.50	4.02E 00	3.72E-01	3.49E-02	3.15E-03	2.27E-04	9.33E-06
		3.21E 00	3.54E-01	3.47E-02	3.14E-03	2.27E-04	9.33E-06
118973.50	14.75	4.22E 00	3.94E-01	3.74E-02	3.48E-03	2.45E-04	1.02E-05
		3.40E 00	3.01E-01	3.74E-02	3.48E-03	2.45E-04	1.02E-05
120000.00	15.00	4.38E 00	4.20E-01	3.99E-02	3.61E-03	2.61E-04	1.09E-05
		3.54E 00	4.03E-01	3.97E-02	3.60E-03	2.61E-04	1.09E-05
122004.50	15.25	4.51E 00	4.54E-01	4.18E-02	3.78E-03	2.74E-04	1.15E-05
		3.70E 00	4.21E-01	4.15E-02	3.78E-03	2.74E-04	1.15E-05
125023.00	15.50	4.67E 00	4.53E-01	4.33E-02	3.92E-03	2.85E-04	1.20E-05
		3.81E 00	4.36E-01	4.31E-02	3.92E-03	2.85E-04	1.20E-05
127039.50	15.75	4.72E 00	4.66E-01	4.44E-02	4.04E-03	2.94E-04	1.24E-05
		3.90E 00	4.49E-01	4.44E-02	4.04E-03	2.94E-04	1.24E-05
129056.00	16.00	4.79E 00	4.76E-01	4.57E-02	4.14E-03	3.02E-04	1.27E-05
		3.98E 00	4.59E-01	4.55E-02	4.14E-03	3.02E-04	1.27E-05
131073.50	16.25	4.85E 00	4.85E-01	4.64E-02	4.22E-03	3.08E-04	1.30E-05
		4.04E 00	4.67E-01	4.63E-02	4.22E-03	3.08E-04	1.30E-05
133089.00	16.50	4.91E 00	4.92E-01	4.73E-02	4.29E-03	3.13E-04	1.32E-05
		4.09E 00	4.74E-01	4.70E-02	4.29E-03	3.13E-04	1.32E-05
135105.50	16.75	4.95E 00	4.94E-01	4.79E-02	4.34E-03	3.17E-04	1.34E-05
		4.14E 00	4.90E-01	4.77E-02	4.34E-03	3.17E-04	1.34E-05
137122.00	17.00	4.99E 00	5.03E-01	4.84E-02	4.39E-03	3.21E-04	1.36E-05
		4.17E 00	4.95E-01	4.82E-02	4.39E-03	3.21E-04	1.36E-05
139138.50	17.25	5.02E 00	5.07E-01	4.88E-02	4.43E-03	3.24E-04	1.37E-05
		4.20E 00	4.99E-01	4.86E-02	4.43E-03	3.24E-04	1.37E-05
141156.00	17.50	5.04E 00	5.10E-01	4.92E-02	4.46E-03	3.26E-04	1.38E-05
		4.23E 00	4.93E-01	4.89E-02	4.46E-03	3.26E-04	1.38E-05
143171.50	17.75	5.06E 00	5.13E-01	4.94E-02	4.49E-03	3.28E-04	1.39E-05
		4.25E 00	4.95E-01	4.92E-02	4.49E-03	3.28E-04	1.39E-05
145188.00	18.00	5.08E 00	5.15E-01	4.97E-02	4.51E-03	3.30E-04	1.40E-05
		4.27E 00	4.98E-01	4.94E-02	4.50E-03	3.30E-04	1.40E-05
147204.50	18.25	5.09E 00	5.17E-01	4.99E-02	4.52E-03	3.31E-04	1.40E-05
		4.28E 00	4.99E-01	4.95E-02	4.52E-03	3.31E-04	1.40E-05
149221.00	18.50	5.11E 00	5.18E-01	5.00E-02	4.54E-03	3.32E-04	1.41E-05
		4.29E 00	5.01E-01	4.98E-02	4.53E-03	3.32E-04	1.41E-05
151237.50	18.75	5.12E 00	5.19E-01	5.01E-02	4.55E-03	3.33E-04	1.41E-05
		4.30E 00	5.02E-01	4.99E-02	4.55E-03	3.33E-04	1.41E-05
153254.00	19.00	5.12E 00	5.20E-01	5.02E-02	4.56E-03	3.34E-04	1.41E-05
		4.31E 00	5.03E-01	5.00E-02	4.56E-03	3.34E-04	1.41E-05
155270.50	19.25	5.13E 00	5.21E-01	5.03E-02	4.57E-03	3.34E-04	1.42E-05
		4.31E 00	5.04E-01	5.01E-02	4.56E-03	3.34E-04	1.42E-05
157287.00	19.50	5.13E 00	5.22E-01	5.04E-02	4.57E-03	3.35E-04	1.42E-05
		4.32E 00	5.05E-01	5.02E-02	4.57E-03	3.35E-04	1.42E-05
159303.50	19.75	5.14E 00	5.22E-01	5.05E-02	4.58E-03	3.35E-04	1.42E-05
		4.32E 00	5.05E-01	5.03E-02	4.57E-03	3.35E-04	1.42E-05

181320.00	20.00	5.14E 00	5.23E-01	5.05E-02	4.58E-03	3.35E-04	1.42E-05	2.57E-07	2.70E-09
183336.50	20.25	4.33E 00	5.05E-01	5.03E-02	4.58E-03	3.35E-04	1.42E-05	2.57E-07	2.70E-09
183336.50	20.25	5.14E 00	5.23E-01	5.05E-02	4.59E-03	3.36E-04	1.42E-05	2.57E-07	2.71E-09
183333.00	20.50	4.33E 00	5.06E-01	5.03E-02	4.59E-03	3.36E-04	1.42E-05	2.57E-07	2.71E-09
183333.00	20.50	5.15E 00	5.23E-01	5.04E-02	4.59E-03	3.36E-04	1.43E-05	2.57E-07	2.71E-09
187369.50	20.75	4.33E 00	5.06E-01	5.03E-02	4.59E-03	3.36E-04	1.43E-05	2.57E-07	2.71E-09
187369.50	20.75	5.15E 00	5.24E-01	5.04E-02	4.59E-03	3.36E-04	1.43E-05	2.58E-07	2.71E-09
188306.00	21.00	4.33E 00	5.06E-01	5.03E-02	4.59E-03	3.36E-04	1.43E-05	2.58E-07	2.71E-09
188306.00	21.00	5.15E 00	5.24E-01	5.04E-02	4.59E-03	3.36E-04	1.43E-05	2.58E-07	2.71E-09
171402.50	21.25	4.34E 00	5.07E-01	5.04E-02	4.59E-03	3.36E-04	1.43E-05	2.58E-07	2.71E-09
173419.00	21.50	4.34E 00	5.07E-01	5.04E-02	4.59E-03	3.36E-04	1.43E-05	2.58E-07	2.71E-09
173419.00	21.50	5.15E 00	5.24E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
175435.50	21.75	4.34E 00	5.07E-01	5.04E-02	4.59E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
175435.50	21.75	5.15E 00	5.24E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
177452.00	22.00	4.34E 00	5.07E-01	5.04E-02	4.59E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
177452.00	22.00	5.15E 00	5.24E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
179468.50	22.25	4.34E 00	5.07E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
179468.50	22.25	5.16E 00	5.25E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
181485.00	22.50	4.34E 00	5.07E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
181485.00	22.50	5.16E 00	5.25E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
183501.50	22.75	4.34E 00	5.07E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
183501.50	22.75	5.16E 00	5.25E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
185518.00	23.00	4.34E 00	5.07E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
185518.00	23.00	5.16E 00	5.25E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
187534.50	23.25	4.34E 00	5.07E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
187534.50	23.25	5.16E 00	5.25E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
188551.00	23.50	4.34E 00	5.07E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
188551.00	23.50	5.16E 00	5.25E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
191567.50	23.75	4.34E 00	5.07E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
191567.50	23.75	5.16E 00	5.25E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
193584.00	24.00	4.34E 00	5.07E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
193584.00	24.00	5.16E 00	5.25E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
195600.50	24.25	4.34E 00	5.07E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
195600.50	24.25	5.16E 00	5.25E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09
195600.50	24.25	4.34E 00	5.08E-01	5.04E-02	4.60E-03	3.37E-04	1.43E-05	2.58E-07	2.72E-09

Wave Number (cm ⁻¹)	Photon Energy (eV)	1.0E-01	1.0E-00	1.0E-01	Density x Normal	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
4639.60	0.60	7.74E-02	7.88E-03	7.29E-04	5.63E-05	2.42E-06	4.74E-08	5.34E-10	5.34E-10	5.44E-12
5646.20	0.70	7.74E-02	7.88E-03	7.29E-04	5.63E-05	2.42E-06	4.74E-08	5.34E-10	5.34E-10	5.44E-12
8452.80	0.80	1.60E-01	1.64E-02	1.52E-03	1.17E-04	5.20E-06	9.71E-09	1.10E-09	1.10E-09	1.11E-11
7259.40	0.90	2.40E-01	2.56E-02	2.37E-03	1.85E-04	8.80E-06	1.56E-07	1.70E-09	1.70E-09	1.71E-11
8066.00	1.00	3.40E-01	3.52E-02	3.27E-03	2.52E-04	1.16E-05	2.20E-07	2.40E-09	2.40E-09	2.42E-11
8672.60	1.10	4.39E-01	4.52E-02	4.10E-03	3.24E-04	1.50E-05	2.04E-07	3.19E-09	3.19E-09	3.10E-11
9679.20	1.20	5.39E-01	5.50E-02	5.11E-03	3.95E-04	1.83E-05	2.80E-07	3.99E-09	3.99E-09	3.80E-11
10485.80	1.30	6.39E-01	6.44E-02	5.98E-03	4.62E-04	2.15E-05	4.09E-07	4.50E-09	4.50E-09	4.57E-11
11292.40	1.40	7.39E-01	7.43E-02	6.91E-03	5.35E-04	2.48E-05	4.63E-07	5.10E-09	5.10E-09	5.18E-11
12099.00	1.50	8.39E-01	8.35E-02	7.79E-03	5.98E-04	2.70E-05	5.10E-07	5.60E-09	5.60E-09	5.69E-11
12905.60	1.60	9.39E-01	9.36E-02	8.52E-03	6.59E-04	3.00E-05	5.63E-07	6.20E-09	6.20E-09	6.16E-11
13712.20	1.70	1.00E-00	1.07E-01	9.21E-03	7.11E-04	3.31E-05	6.11E-07	6.81E-09	6.81E-09	6.69E-11
14518.60	1.80	1.08E-00	1.07E-01	9.86E-03	7.61E-04	3.54E-05	6.57E-07	7.33E-09	7.33E-09	7.21E-11
15325.40	1.90	1.16E-00	1.14E-01	1.05E-02	8.06E-04	3.75E-05	6.99E-07	7.80E-09	7.80E-09	7.69E-11
16132.00	2.00	1.23E-00	1.20E-01	1.10E-02	8.46E-04	3.95E-05	7.37E-07	8.23E-09	8.23E-09	8.13E-11
16938.60	2.10	1.31E-00	1.25E-01	1.15E-02	8.87E-04	4.13E-05	7.72E-07	8.63E-09	8.63E-09	8.54E-11
17745.20	2.20	1.37E-00	1.31E-01	1.20E-02	9.23E-04	4.30E-05	8.05E-07	9.00E-09	9.00E-09	8.92E-11
18551.80	2.30	1.44E-00	1.36E-01	1.24E-02	9.56E-04	4.46E-05	8.35E-07	9.34E-09	9.34E-09	9.27E-11
19358.40	2.40	1.49E-00	1.41E-01	1.28E-02	9.86E-04	4.60E-05	8.62E-07	9.65E-09	9.65E-09	9.58E-11
20165.00	2.50	1.55E-00	1.45E-01	1.33E-02	1.02E-03	4.72E-05	8.86E-07	9.91E-09	9.91E-09	9.85E-11
20971.60	2.60	1.61E-00	1.50E-01	1.37E-02	1.05E-03	4.86E-05	9.06E-07	1.01E-08	1.01E-08	1.01E-10
21778.20	2.70	1.66E-00	1.56E-01	1.41E-02	1.08E-03	5.01E-05	9.32E-07	1.04E-08	1.04E-08	1.03E-10
		1.55E-00	1.54E-01	1.41E-02	1.09E-03	5.01E-05	9.32E-07	1.04E-08	1.04E-08	1.03E-10
		1.72E-00	1.60E-01	1.45E-02	1.11E-03	5.14E-05	9.59E-07	1.07E-08	1.07E-08	1.06E-10
		1.61E-00	1.59E-01	1.45E-02	1.11E-03	5.14E-05	9.59E-07	1.07E-08	1.07E-08	1.06E-10

27584.60	2.80	1.77E-00	1.65E-01	1.49E-02	1.14E-03	5.28E-05	9.94E-07	1.10E-08	1.09E-10
27591.40	2.90	1.68E-00	1.63E-01	1.49E-02	1.14E-03	5.28E-05	9.94E-07	1.10E-08	1.09E-10
27600.00	3.00	1.83E-00	1.69E-01	1.52E-02	1.17E-03	5.40E-05	1.01E-06	1.13E-08	1.11E-10
27610.00	3.10	1.71E-00	1.67E-01	1.52E-02	1.17E-03	5.40E-05	1.01E-06	1.13E-08	1.11E-10
27620.00	3.20	1.88E-00	1.73E-01	1.56E-02	1.19E-03	5.51E-05	1.03E-06	1.15E-08	1.14E-10
27630.00	3.30	1.76E-00	1.71E-01	1.56E-02	1.19E-03	5.51E-05	1.03E-06	1.15E-08	1.14E-10
27640.00	3.40	1.93E-00	1.77E-01	1.59E-02	1.21E-03	5.62E-05	1.05E-06	1.18E-08	1.17E-10
27650.00	3.50	1.80E-00	1.75E-01	1.58E-02	1.21E-03	5.62E-05	1.05E-06	1.18E-08	1.17E-10
27660.00	3.60	1.99E-00	1.81E-01	1.62E-02	1.24E-03	5.72E-05	1.07E-06	1.20E-08	1.19E-10
27670.00	3.70	1.85E-00	1.78E-01	1.61E-02	1.24E-03	5.72E-05	1.07E-06	1.20E-08	1.19E-10
27680.00	3.80	2.05E-00	1.84E-01	1.64E-02	1.26E-03	5.81E-05	1.09E-06	1.22E-08	1.21E-10
27690.00	3.90	1.89E-00	1.82E-01	1.64E-02	1.26E-03	5.81E-05	1.09E-06	1.22E-08	1.21E-10
27700.00	4.00	2.10E-00	1.87E-01	1.67E-02	1.27E-03	5.90E-05	1.11E-06	1.24E-08	1.23E-10
27710.00	4.10	1.93E-00	1.85E-01	1.66E-02	1.27E-03	5.90E-05	1.11E-06	1.24E-08	1.23E-10
27720.00	4.20	2.17E-00	1.91E-01	1.69E-02	1.29E-03	5.98E-05	1.12E-06	1.25E-08	1.25E-10
27730.00	4.30	1.98E-00	1.88E-01	1.69E-02	1.29E-03	5.98E-05	1.12E-06	1.25E-08	1.25E-10
27740.00	4.40	2.24E-00	1.95E-01	1.72E-02	1.31E-03	6.05E-05	1.14E-06	1.27E-08	1.26E-10
27750.00	4.50	2.04E-00	1.91E-01	1.71E-02	1.31E-03	6.05E-05	1.14E-06	1.27E-08	1.26E-10
27760.00	4.60	2.31E-00	1.98E-01	1.74E-02	1.32E-03	6.11E-05	1.15E-06	1.28E-08	1.28E-10
27770.00	4.70	2.09E-00	1.94E-01	1.73E-02	1.32E-03	6.11E-05	1.15E-06	1.28E-08	1.28E-10
27780.00	4.80	2.39E-00	2.01E-01	1.76E-02	1.34E-03	6.18E-05	1.16E-06	1.30E-08	1.30E-10
27790.00	4.90	2.15E-00	1.96E-01	1.76E-02	1.34E-03	6.18E-05	1.16E-06	1.30E-08	1.30E-10
27800.00	5.00	2.45E-00	2.05E-01	1.79E-02	1.35E-03	6.25E-05	1.17E-06	1.31E-08	1.31E-10
27810.00	5.10	2.21E-00	2.01E-01	1.78E-02	1.35E-03	6.25E-05	1.17E-06	1.31E-08	1.31E-10
27820.00	5.20	2.55E-00	2.09E-01	1.81E-02	1.37E-03	6.32E-05	1.18E-06	1.32E-08	1.32E-10
27830.00	5.30	2.32E-00	2.04E-01	1.80E-02	1.37E-03	6.32E-05	1.18E-06	1.32E-08	1.32E-10
27840.00	5.40	2.68E-00	2.12E-01	1.84E-02	1.39E-03	6.41E-05	1.20E-06	1.34E-08	1.34E-10
27850.00	5.50	2.38E-00	2.08E-01	1.83E-02	1.39E-03	6.41E-05	1.20E-06	1.34E-08	1.34E-10
27860.00	5.60	2.78E-00	2.16E-01	1.86E-02	1.41E-03	6.50E-05	1.22E-06	1.35E-08	1.35E-10
27870.00	5.70	2.47E-00	2.12E-01	1.86E-02	1.41E-03	6.50E-05	1.22E-06	1.35E-08	1.35E-10
27880.00	5.80	2.89E-00	2.20E-01	1.89E-02	1.43E-03	6.59E-05	1.23E-06	1.37E-08	1.37E-10
27890.00	5.90	2.44E-00	2.15E-01	1.88E-02	1.43E-03	6.59E-05	1.23E-06	1.37E-08	1.37E-10
27900.00	6.00	2.79E-00	2.23E-01	1.91E-02	1.45E-03	6.67E-05	1.25E-06	1.39E-08	1.39E-10
27910.00	6.10	2.50E-00	2.18E-01	1.91E-02	1.45E-03	6.67E-05	1.25E-06	1.39E-08	1.39E-10
27920.00	6.20	2.85E-00	2.26E-01	1.94E-02	1.46E-03	6.75E-05	1.26E-06	1.41E-08	1.41E-10
27930.00	6.30	2.55E-00	2.22E-01	1.93E-02	1.46E-03	6.75E-05	1.26E-06	1.41E-08	1.41E-10
27940.00	6.40	2.90E-00	2.29E-01	1.95E-02	1.48E-03	6.82E-05	1.28E-06	1.42E-08	1.42E-10
27950.00	6.50	2.60E-00	2.25E-01	1.95E-02	1.48E-03	6.82E-05	1.28E-06	1.42E-08	1.42E-10
27960.00	6.60	2.96E-00	2.32E-01	1.98E-02	1.49E-03	6.89E-05	1.29E-06	1.44E-08	1.44E-10
27970.00	6.70	2.65E-00	2.28E-01	1.97E-02	1.49E-03	6.89E-05	1.29E-06	1.44E-08	1.44E-10
27980.00	6.80	3.01E-00	2.35E-01	2.00E-02	1.51E-03	6.95E-05	1.31E-06	1.45E-08	1.45E-10
27990.00	6.90	2.70E-00	2.30E-01	1.99E-02	1.50E-03	6.95E-05	1.31E-06	1.45E-08	1.45E-10
28000.00	7.00	3.06E-00	2.38E-01	2.02E-02	1.52E-03	7.02E-05	1.32E-06	1.47E-08	1.47E-10
28010.00	7.10	2.75E-00	2.33E-01	2.01E-02	1.52E-03	7.02E-05	1.32E-06	1.47E-08	1.47E-10
28020.00	7.20	3.10E-00	2.40E-01	2.04E-02	1.53E-03	7.08E-05	1.33E-06	1.48E-08	1.48E-10
28030.00	7.30	2.79E-00	2.34E-01	2.03E-02	1.53E-03	7.08E-05	1.33E-06	1.48E-08	1.48E-10
28040.00	7.40	3.15E-00	2.43E-01	2.05E-02	1.54E-03	7.13E-05	1.34E-06	1.49E-08	1.49E-10
28050.00	7.50	2.83E-00	2.34E-01	2.05E-02	1.54E-03	7.13E-05	1.34E-06	1.49E-08	1.49E-10
28060.00	7.60	3.19E-00	2.45E-01	2.07E-02	1.55E-03	7.19E-05	1.35E-06	1.51E-08	1.51E-10
28070.00	7.70	2.87E-00	2.40E-01	2.06E-02	1.55E-03	7.19E-05	1.35E-06	1.51E-08	1.51E-10

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 14000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	1.0E 01	1.0E 00	1.0E-01	Density × Normal	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
42749.50	5.30	3.23E 00	2.48E-01	2.08E-02	1.57E-03	7.24E-05	1.36E-06	1.36E-06	1.36E-06	1.36E-06
43556.40	5.40	2.91E 00	2.43E-01	2.08E-02	1.56E-03	7.24E-05	1.36E-06	1.36E-06	1.36E-06	1.36E-06
43637.00	5.50	2.99E 00	2.45E-01	2.09E-02	1.57E-03	7.29E-05	1.37E-06	1.37E-06	1.37E-06	1.37E-06
45169.60	5.60	3.31E 00	2.52E-01	2.11E-02	1.59E-03	7.35E-05	1.38E-06	1.38E-06	1.38E-06	1.38E-06
45976.20	5.70	2.99E 00	2.47E-01	2.11E-02	1.58E-03	7.35E-05	1.38E-06	1.38E-06	1.38E-06	1.38E-06
46782.80	5.80	3.02E 00	2.49E-01	2.12E-02	1.59E-03	7.38E-05	1.39E-06	1.39E-06	1.39E-06	1.39E-06
47589.40	5.90	3.06E 00	2.51E-01	2.13E-02	1.60E-03	7.42E-05	1.40E-06	1.40E-06	1.40E-06	1.40E-06
48396.00	6.00	3.43E 00	2.58E-01	2.15E-02	1.61E-03	7.46E-05	1.41E-06	1.41E-06	1.41E-06	1.41E-06
49202.60	6.10	3.09E 00	2.53E-01	2.14E-02	1.61E-03	7.46E-05	1.41E-06	1.41E-06	1.41E-06	1.41E-06
50009.20	6.20	3.47E 00	2.60E-01	2.16E-02	1.62E-03	7.50E-05	1.41E-06	1.41E-06	1.41E-06	1.41E-06
50815.80	6.30	3.13E 00	2.55E-01	2.16E-02	1.62E-03	7.50E-05	1.41E-06	1.41E-06	1.41E-06	1.41E-06
51622.40	6.40	3.50E 00	2.61E-01	2.18E-02	1.63E-03	7.54E-05	1.42E-06	1.42E-06	1.42E-06	1.42E-06
52429.00	6.50	2.16E 00	2.56E-01	2.17E-02	1.63E-03	7.53E-05	1.42E-06	1.42E-06	1.42E-06	1.42E-06
53235.60	6.60	3.54E 00	2.63E-01	2.19E-02	1.64E-03	7.57E-05	1.43E-06	1.43E-06	1.43E-06	1.43E-06
54042.20	6.70	3.20E 00	2.58E-01	2.18E-02	1.64E-03	7.56E-05	1.43E-06	1.43E-06	1.43E-06	1.43E-06
54848.80	6.80	3.23E 00	2.60E-01	2.19E-02	1.64E-03	7.60E-05	1.44E-06	1.44E-06	1.44E-06	1.44E-06
55655.40	6.90	3.60E 00	2.66E-01	2.21E-02	1.65E-03	7.64E-05	1.44E-06	1.44E-06	1.44E-06	1.44E-06
56462.00	7.00	3.26E 00	2.61E-01	2.20E-02	1.65E-03	7.64E-05	1.44E-06	1.44E-06	1.44E-06	1.44E-06
57268.60	7.10	3.64E 00	2.68E-01	2.22E-02	1.66E-03	7.67E-05	1.45E-06	1.45E-06	1.45E-06	1.45E-06
58075.20	7.20	3.29E 00	2.63E-01	2.21E-02	1.66E-03	7.67E-05	1.45E-06	1.45E-06	1.45E-06	1.45E-06
58881.80	7.30	3.67E 00	2.69E-01	2.23E-02	1.67E-03	7.70E-05	1.45E-06	1.45E-06	1.45E-06	1.45E-06
59688.40	7.40	3.31E 00	2.64E-01	2.22E-02	1.66E-03	7.70E-05	1.45E-06	1.45E-06	1.45E-06	1.45E-06
		3.70E 00	2.71E-01	2.24E-02	1.67E-03	7.72E-05	1.45E-06	1.45E-06	1.45E-06	1.45E-06
		3.73E 00	2.72E-01	2.24E-02	1.68E-03	7.73E-05	1.45E-06	1.45E-06	1.45E-06	1.45E-06
		3.36E 00	2.67E-01	2.24E-02	1.67E-03	7.73E-05	1.45E-06	1.45E-06	1.45E-06	1.45E-06
		3.75E 00	2.74E-01	2.25E-02	1.68E-03	7.78E-05	1.47E-06	1.47E-06	1.47E-06	1.47E-06
		3.39E 00	2.68E-01	2.24E-02	1.68E-03	7.78E-05	1.47E-06	1.47E-06	1.47E-06	1.47E-06
		3.76E 00	2.75E-01	2.26E-02	1.69E-03	7.80E-05	1.47E-06	1.47E-06	1.47E-06	1.47E-06
		3.41E 00	2.69E-01	2.25E-02	1.68E-03	7.80E-05	1.47E-06	1.47E-06	1.47E-06	1.47E-06
		3.81E 00	2.76E-01	2.27E-02	1.69E-03	7.82E-05	1.48E-06	1.48E-06	1.48E-06	1.48E-06
		3.43E 00	2.70E-01	2.26E-02	1.69E-03	7.82E-05	1.48E-06	1.48E-06	1.48E-06	1.48E-06
		3.83E 00	2.77E-01	2.27E-02	1.70E-03	7.85E-05	1.48E-06	1.48E-06	1.48E-06	1.48E-06
		3.45E 00	2.71E-01	2.27E-02	1.69E-03	7.85E-05	1.48E-06	1.48E-06	1.48E-06	1.48E-06
		3.85E 00	2.78E-01	2.28E-02	1.70E-03	7.87E-05	1.49E-06	1.49E-06	1.49E-06	1.49E-06
		3.47E 00	2.73E-01	2.27E-02	1.70E-03	7.87E-05	1.49E-06	1.49E-06	1.49E-06	1.49E-06
		3.86E 00	2.79E-01	2.29E-02	1.70E-03	7.89E-05	1.49E-06	1.49E-06	1.49E-06	1.49E-06
		3.49E 00	2.74E-01	2.28E-02	1.70E-03	7.89E-05	1.49E-06	1.49E-06	1.49E-06	1.49E-06
		3.90E 00	2.80E-01	2.29E-02	1.71E-03	7.91E-05	1.50E-06	1.50E-06	1.50E-06	1.50E-06
		3.51E 00	2.74E-01	2.29E-02	1.71E-03	7.91E-05	1.50E-06	1.50E-06	1.50E-06	1.50E-06

60495.00	7.50	3.92E 00	2.81E-01	2.30E-02	1.71E-03	7.93E-05	1.50E-06	1.68E-08	1.68E-10
61301.60	7.60	3.53E 00	2.75E-01	2.29E-02	1.71E-03	7.93E-05	1.50E-06	1.68E-08	1.68E-10
62108.20	7.70	3.54E 00	2.76E-01	2.30E-02	1.72E-03	7.94E-05	1.50E-06	1.69E-08	1.69E-10
62914.80	7.80	3.96E 00	2.83E-01	2.31E-02	1.72E-03	7.96E-05	1.51E-06	1.69E-08	1.69E-10
63721.40	7.90	3.56E 00	2.77E-01	2.30E-02	1.72E-03	7.96E-05	1.51E-06	1.69E-08	1.69E-10
64528.00	8.00	3.98E 00	2.84E-01	2.32E-02	1.72E-03	7.98E-05	1.51E-06	1.69E-08	1.69E-10
65334.60	8.10	3.57E 00	2.78E-01	2.31E-02	1.72E-03	7.98E-05	1.51E-06	1.69E-08	1.69E-10
66141.20	8.20	4.00E 00	2.85E-01	2.32E-02	1.73E-03	7.99E-05	1.51E-06	1.69E-08	1.69E-10
66947.80	8.30	3.59E 00	2.79E-01	2.31E-02	1.73E-03	7.99E-05	1.51E-06	1.69E-08	1.69E-10
67754.40	8.40	4.02E 00	2.85E-01	2.32E-02	1.73E-03	8.01E-05	1.52E-06	1.69E-08	1.69E-10
68561.00	8.50	3.60F 00	2.79E-01	2.32E-02	1.73E-03	8.01E-05	1.52E-06	1.69E-08	1.69E-10
69367.60	8.60	4.03E 00	2.86E-01	2.33E-02	1.73E-03	8.02E-05	1.52E-06	1.70E-08	1.70E-10
70174.20	8.70	3.61E 00	2.80F-01	2.32E-02	1.73E-03	8.02E-05	1.52E-06	1.70E-08	1.70E-10
70980.80	8.80	4.05E 00	2.87E-01	2.33E-02	1.74E-03	8.03E-05	1.52E-06	1.70E-08	1.70E-10
71787.40	8.90	3.63E 00	2.81E-01	2.32E-02	1.73E-03	8.03E-05	1.52E-06	1.70E-08	1.70E-10
72594.00	9.00	4.07E 00	2.87E-01	2.33E-02	1.74E-03	8.05E-05	1.52E-06	1.70E-08	1.70E-10
73400.60	9.10	3.64E 00	2.81E-01	2.32E-02	1.74E-03	8.05E-05	1.52E-06	1.70E-08	1.70E-10
74207.20	9.20	4.09E 00	2.86E-01	2.34E-02	1.74E-03	8.06E-05	1.53E-06	1.71E-08	1.71E-10
75013.80	9.30	3.65E 00	2.82E-01	2.33E-02	1.74E-03	8.06E-05	1.53E-06	1.71E-08	1.71E-10
75820.40	9.40	4.10E 00	2.89F-01	2.35E-02	1.74E-03	8.07E-05	1.53E-06	1.71E-08	1.71E-10
76627.00	9.50	3.66E 00	2.82E-01	2.33E-02	1.74E-03	8.07E-05	1.53E-06	1.71E-08	1.71E-10
77433.60	9.60	4.12E 00	2.89E-01	2.35E-02	1.75E-03	8.08E-05	1.53E-06	1.71E-08	1.71E-10
78240.20	9.70	3.67E 00	2.83E-01	2.34E-02	1.74E-03	8.08E-05	1.53E-06	1.71E-08	1.71E-10
79046.80	9.80	4.13E 00	2.90E-01	2.35E-02	1.75E-03	8.09E-05	1.53E-06	1.71E-08	1.71E-10
79853.40	9.90	3.68E 00	2.83E-01	2.34E-02	1.75E-03	8.09E-05	1.53E-06	1.71E-08	1.71E-10
		4.15E 00	2.90E-01	2.36E-02	1.75E-03	8.10E-05	1.54E-06	1.72E-08	1.72E-10
		3.69E 00	2.84E-01	2.35E-02	1.75E-03	8.10E-05	1.54E-06	1.72E-08	1.72E-10
		4.17E 00	2.91E-01	2.36E-02	1.75E-03	8.11E-05	1.54E-06	1.72E-08	1.72E-10
		3.70E 00	2.84E-01	2.35E-02	1.75E-03	8.11E-05	1.54E-06	1.72E-08	1.72E-10
		4.18E 00	2.92E-01	2.36E-02	1.75E-03	8.12E-05	1.54E-06	1.72E-08	1.72E-10
		3.72E 00	2.85E-01	2.35E-02	1.75E-03	8.12E-05	1.54E-06	1.72E-08	1.72E-10
		4.20E 00	2.92E-01	2.36E-02	1.76E-03	8.13E-05	1.54E-06	1.72E-08	1.72E-10
		3.71E 00	2.85E-01	2.35E-02	1.75E-03	8.13E-05	1.54E-06	1.72E-08	1.72E-10
		4.21E 00	2.93E-01	2.37E-02	1.76E-03	8.14E-05	1.54E-06	1.72E-08	1.72E-10
		3.72E 00	2.86E-01	2.36E-02	1.76E-03	8.14E-05	1.54E-06	1.72E-08	1.72E-10
		4.23E 00	2.94E-01	2.38E-02	1.76E-03	8.15E-05	1.54E-06	1.73E-08	1.73E-10
		3.73E 00	2.86E-01	2.36E-02	1.76E-03	8.15E-05	1.54E-06	1.73E-08	1.73E-10
		4.25E 00	2.94E-01	2.38E-02	1.77E-03	8.17E-05	1.55E-06	1.73E-08	1.73E-10
		3.74E 00	2.87E-01	2.37E-02	1.77E-03	8.17E-05	1.55E-06	1.73E-08	1.73E-10
		4.26E 00	2.95E-01	2.39E-02	1.77E-03	8.18E-05	1.55E-06	1.73E-08	1.73E-10
		3.75E 00	2.88E-01	2.38E-02	1.77E-03	8.18E-05	1.55E-06	1.73E-08	1.73E-10
		4.28E 00	2.96E-01	2.39E-02	1.77E-03	8.20E-05	1.55E-06	1.74E-08	1.74E-10
		3.76E 00	2.88E-01	2.38E-02	1.77E-03	8.20E-05	1.55E-06	1.74E-08	1.74E-10
		4.30E 00	2.96E-01	2.39E-02	1.78E-03	8.21E-05	1.56E-06	1.74E-08	1.74E-10
		3.76E 00	2.89E-01	2.38E-02	1.78E-03	8.21E-05	1.56E-06	1.74E-08	1.74E-10
		4.31E 00	2.97E-01	2.40E-02	1.78E-03	8.23E-05	1.56E-06	1.74E-08	1.74E-10
		3.77E 00	2.89E-01	2.39E-02	1.78E-03	8.22E-05	1.56E-06	1.74E-08	1.74E-10
		4.33E 00	2.97E-01	2.40E-02	1.78E-03	8.24E-05	1.56E-06	1.74E-08	1.74E-10
		3.78E 00	2.90E-01	2.39E-02	1.78E-03	8.24E-05	1.56E-06	1.74E-08	1.74E-10

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 14000°K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal							
		1.0E 01	1.0E 00	1.0E-01	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
80660.00	10.00	4.35E 00	2.98E-01	2.40E-02	1.76E-03	8.23E-05	1.90E-06	1.75E-08	1.76E-10
81466.60	10.10	3.78E 00	2.90E-01	2.39E-02	1.78E-03	8.25E-05	1.56E-06	1.75E-08	1.76E-10
81466.60	10.10	4.36E 00	2.99E-01	2.41E-02	1.79E-03	8.26E-05	1.96E-06	1.75E-08	1.76E-10
82273.20	10.20	3.79E 00	2.90E-01	2.40E-02	1.79E-03	8.27E-05	1.56E-06	1.75E-08	1.76E-10
82273.20	10.20	4.38E 00	2.99E-01	2.41E-02	1.79E-03	8.27E-05	1.57E-06	1.75E-08	1.76E-10
83079.80	10.30	3.80E 00	2.91E-01	2.40E-02	1.78E-03	8.27E-05	1.57E-06	1.75E-08	1.76E-10
83079.80	10.30	4.39E 00	3.00E-01	2.41E-02	1.79E-03	8.28E-05	1.97E-06	1.75E-08	1.76E-10
83886.40	10.40	3.80E 00	2.91E-01	2.40E-02	1.79E-03	8.28E-05	1.97E-06	1.75E-08	1.76E-10
83886.40	10.40	4.41E 00	3.02E-01	2.42E-02	1.79E-03	8.29E-05	1.57E-06	1.76E-08	1.77E-10
84693.00	10.50	3.81E 00	2.92E-01	2.41E-02	1.79E-03	8.29E-05	1.57E-06	1.76E-08	1.77E-10
84693.00	10.50	4.42E 00	3.01E-01	2.42E-02	1.79E-03	8.30E-05	1.97E-06	1.76E-08	1.77E-10
85499.60	10.60	3.81E 00	2.92E-01	2.41E-02	1.79E-03	8.30E-05	1.57E-06	1.76E-08	1.77E-10
85499.60	10.60	4.44E 00	3.01E-01	2.42E-02	1.80E-03	8.31E-05	1.57E-06	1.76E-08	1.77E-10
86306.20	10.70	3.82E 00	2.92E-01	2.41E-02	1.80E-03	8.31E-05	1.57E-06	1.76E-08	1.77E-10
86306.20	10.70	4.48E 00	3.04E-01	2.46E-02	2.13E-03	8.32E-05	1.50E-06	1.76E-08	1.77E-10
88726.00	11.00	4.24E 00	3.99E-01	3.05E-02	2.13E-03	8.32E-05	1.50E-06	1.76E-08	1.77E-10
88726.00	11.00	5.36E 00	4.02E-01	3.31E-02	2.32E-03	1.01E-04	1.91E-06	2.14E-08	2.15E-10
90742.50	11.25	4.72E 00	3.93E-01	3.35E-02	2.52E-03	1.01E-04	1.91E-06	2.14E-08	2.15E-10
90742.50	11.25	5.75E 00	4.05E-01	3.77E-02	2.62E-03	1.15E-04	2.17E-06	2.43E-08	2.45E-10
90742.50	11.25	5.75E 00	4.05E-01	3.77E-02	2.62E-03	1.15E-04	2.17E-06	2.43E-08	2.45E-10
92759.00	11.50	6.08E 00	4.82E-01	4.11E-02	3.08E-03	1.27E-04	2.46E-06	2.89E-08	2.91E-10
92759.00	11.50	5.43E 00	4.73E-01	4.19E-02	3.08E-03	1.27E-04	2.40E-06	2.89E-08	2.91E-10
94775.50	11.75	6.36E 00	5.14E-01	4.43E-02	3.31E-03	1.37E-04	2.60E-06	3.21E-08	3.24E-10
94775.50	11.75	5.72E 00	5.05E-01	4.40E-02	3.31E-03	1.37E-04	2.60E-06	3.21E-08	3.24E-10
96792.00	12.00	7.42E 00	6.39E-01	5.51E-02	4.16E-03	1.76E-04	3.77E-06	4.30E-08	4.33E-10
96792.00	12.00	6.73F 00	6.24E-01	5.58E-02	4.16E-03	1.76E-04	3.77E-06	4.30E-08	4.33E-10
98808.50	12.25	6.34E 00	7.35E-01	6.47E-02	4.46E-03	2.09E-04	3.40E-06	3.81E-08	3.85E-10
98808.50	12.25	7.69E 00	7.26E-01	6.48E-02	4.68E-03	2.09E-04	3.40E-06	3.81E-08	3.85E-10
100825.00	12.50	9.13E 00	8.24E-01	7.30E-02	5.52E-03	2.38E-04	3.95E-06	4.42E-08	4.47E-10
100825.00	12.50	8.48E 00	8.14E-01	7.21E-02	5.52E-03	2.38E-04	3.95E-06	4.42E-08	4.47E-10
102841.50	12.75	9.86E 00	9.07E-01	8.07E-02	6.15E-03	2.65E-04	4.46E-06	4.95E-08	5.00E-10
102841.50	12.75	9.22F 00	8.98E-01	8.05E-02	6.15E-03	2.65E-04	4.46E-06	4.95E-08	5.00E-10
104858.00	13.00	1.05E 01	9.78E-01	8.74E-02	6.61E-03	2.88E-04	4.89E-06	5.44E-08	5.50E-10
104858.00	13.00	9.86E 00	9.69E-01	8.73E-02	6.61E-03	2.88E-04	4.89E-06	5.44E-08	5.50E-10
106874.50	13.25	1.10F 01	1.04E 00	9.31E-02	7.05E-03	3.08E-04	5.27E-06	5.86E-08	5.93E-10
106874.50	13.25	1.04E 01	1.03E 00	9.33E-02	7.05E-03	3.08E-04	5.27E-06	5.86E-08	5.93E-10
108891.00	13.50	1.17E 01	1.11E 00	1.00E-01	7.61E-03	3.35E-04	5.83E-06	6.72E-08	6.29E-10
108891.00	13.50	1.11E 01	1.11E 00	1.00E-01	7.61E-03	3.35E-04	5.83E-06	6.72E-08	6.29E-10
110907.50	13.75	1.24E 01	1.18E 00	1.06E-01	8.10E-03	3.59E-04	6.31E-06	7.77E-08	6.85E-10
110907.50	13.75	1.17E 01	1.17E 00	1.06E-01	8.10E-03	3.59E-04	6.31E-06	7.77E-08	6.85E-10
112924.00	14.00	1.35E 01	1.26E 00	1.13E-01	8.64E-03	3.84E-04	6.84E-06	8.33E-08	7.33E-10
112924.00	14.00	1.24E 01	1.25E 00	1.13E-01	8.64E-03	3.84E-04	6.84E-06	8.33E-08	7.33E-10
114940.50	14.25	1.36E 01	1.32E 00	1.19E-01	9.11E-03	4.08E-04	7.29E-06	8.80E-08	7.85E-10
114940.50	14.25	1.30E 01	1.31E 00	1.19E-01	9.11E-03	4.08E-04	7.29E-06	8.80E-08	7.85E-10

118957.00	14.50	1.48E 01	1.45E 00	1.31E-01	1.00E-02	4.51E-04	8.13E-06	8.82E-08	8.30E-10
		1.41E 01	1.44E 00	1.31E-01	1.00E-02	4.51E-04	8.13E-06	8.82E-08	8.30E-10
118973.50	14.75	1.58E 01	1.56E 00	1.42E-01	1.08E-02	4.69E-04	8.05E-06	9.53E-08	9.13E-10
		1.53E 01	1.55E 00	1.42E-01	1.08E-02	4.69E-04	8.05E-06	9.53E-08	9.13E-10
120990.00	15.00	1.67E 01	1.66E 00	1.51E-01	1.16E-02	5.22E-04	9.49E-06	1.04E-07	9.87E-10
		1.60E 01	1.65E 00	1.51E-01	1.15E-02	5.22E-04	9.49E-06	1.04E-07	9.87E-10
123006.50	15.25	1.74E 01	1.74E 00	1.59E-01	1.22E-02	5.51E-04	1.01E-05	1.10E-07	1.05E-09
		1.68E 01	1.73E 00	1.59E-01	1.22E-02	5.51E-04	1.01E-05	1.10E-07	1.05E-09
125023.00	15.50	1.81E 01	1.81E 00	1.68E-01	1.27E-02	5.75E-04	1.05E-05	1.15E-07	1.11E-09
		1.74E 01	1.80E 00	1.65E-01	1.27E-02	5.75E-04	1.05E-05	1.15E-07	1.11E-09
127039.50	15.75	1.86E 01	1.87E 00	1.71E-01	1.31E-02	5.96E-04	1.09E-05	1.20E-07	1.15E-09
		1.80E 01	1.87E 00	1.71E-01	1.31E-02	5.96E-04	1.09E-05	1.20E-07	1.15E-09
129056.00	16.00	1.91E 01	1.93E 00	1.76E-01	1.35E-02	6.14E-04	1.13E-05	1.24E-07	1.19E-09
		1.85E 01	1.92E 00	1.76E-01	1.35E-02	6.14E-04	1.13E-05	1.24E-07	1.19E-09
131072.50	16.25	1.95E 01	1.97E 00	1.80E-01	1.38E-02	6.29E-04	1.16E-05	1.27E-07	1.23E-09
		1.89E 01	1.96E 00	1.80E-01	1.38E-02	6.29E-04	1.16E-05	1.27E-07	1.23E-09
133089.00	16.50	1.99E 01	2.01E 00	1.84E-01	1.41E-02	6.42E-04	1.18E-05	1.30E-07	1.25E-09
		1.92E 01	2.00E 00	1.84E-01	1.41E-02	6.42E-04	1.18E-05	1.30E-07	1.25E-09
135105.50	16.75	2.02E 01	2.04E 00	1.87E-01	1.43E-02	6.54E-04	1.21E-05	1.32E-07	1.28E-09
		1.95E 01	2.03E 00	1.87E-01	1.43E-02	6.54E-04	1.21E-05	1.32E-07	1.28E-09
137123.00	17.00	2.04E 01	2.07E 00	1.90E-01	1.46E-02	6.64E-04	1.22E-05	1.35E-07	1.30E-09
		1.98E 01	2.06E 00	1.90E-01	1.46E-02	6.64E-04	1.22E-05	1.35E-07	1.30E-09
139138.50	17.25	2.08E 01	2.10E 00	1.92E-01	1.47E-02	6.73E-04	1.24E-05	1.37E-07	1.32E-09
		2.00E 01	2.07E 00	1.92E-01	1.47E-02	6.73E-04	1.24E-05	1.37E-07	1.32E-09
141155.00	17.50	2.08E 01	2.12E 00	1.94E-01	1.49E-02	6.80E-04	1.26E-05	1.38E-07	1.34E-09
		2.02E 01	2.11E 00	1.94E-01	1.49E-02	6.80E-04	1.26E-05	1.38E-07	1.34E-09
143171.50	17.75	2.13E 01	2.13E 00	1.96E-01	1.50E-02	6.86E-04	1.27E-05	1.40E-07	1.35E-09
		2.04E 01	2.13E 00	1.95E-01	1.50E-02	6.86E-04	1.27E-05	1.40E-07	1.35E-09
145188.00	18.00	2.11E 01	2.15E 00	1.97E-01	1.51E-02	6.91E-04	1.28E-05	1.41E-07	1.36E-09
		2.05E 01	2.14E 00	1.97E-01	1.51E-02	6.91E-04	1.28E-05	1.41E-07	1.36E-09
147204.50	18.25	2.12E 01	2.16E 00	1.98E-01	1.52E-02	6.95E-04	1.29E-05	1.42E-07	1.37E-09
		2.06E 01	2.15E 00	1.98E-01	1.52E-02	6.95E-04	1.29E-05	1.42E-07	1.37E-09
149221.00	18.50	2.13E 01	2.17E 00	1.99E-01	1.53E-02	6.99E-04	1.29E-05	1.42E-07	1.38E-09
		2.07E 01	2.16E 00	1.99E-01	1.53E-02	6.99E-04	1.29E-05	1.42E-07	1.38E-09
161237.50	18.75	2.14E 01	2.18E 00	2.00E-01	1.54E-02	7.02E-04	1.30E-05	1.43E-07	1.39E-09
		2.08E 01	2.17E 00	2.00E-01	1.54E-02	7.02E-04	1.30E-05	1.43E-07	1.39E-09
163254.00	19.00	2.15E 01	2.19E 00	2.01E-01	1.54E-02	7.05E-04	1.31E-05	1.44E-07	1.39E-09
		2.08E 01	2.18E 00	2.01E-01	1.54E-02	7.05E-04	1.31E-05	1.44E-07	1.39E-09
165270.50	19.25	2.15E 01	2.20E 00	2.01E-01	1.55E-02	7.07E-04	1.31E-05	1.44E-07	1.40E-09
		2.09E 01	2.19E 00	2.01E-01	1.55E-02	7.07E-04	1.31E-05	1.44E-07	1.40E-09
167287.00	19.50	2.16E 01	2.20E 00	2.02E-01	1.55E-02	7.09E-04	1.31E-05	1.45E-07	1.40E-09
		2.10E 01	2.19E 00	2.02E-01	1.55E-02	7.09E-04	1.31E-05	1.45E-07	1.40E-09
169303.50	19.75	2.16E 01	2.21E 00	2.02E-01	1.55E-02	7.11E-04	1.32E-05	1.45E-07	1.41E-09
		2.10E 01	2.20E 00	2.02E-01	1.55E-02	7.11E-04	1.32E-05	1.45E-07	1.41E-09
161320.00	20.00	2.17E 01	2.21E 00	2.03E-01	1.56E-02	7.12E-04	1.32E-05	1.45E-07	1.41E-09
		2.10E 01	2.20E 00	2.03E-01	1.56E-02	7.12E-04	1.32E-05	1.45E-07	1.41E-09
163336.50	20.25	2.17E 01	2.21E 00	2.03E-01	1.56E-02	7.13E-04	1.32E-05	1.46E-07	1.41E-09
		2.11E 01	2.20E 00	2.03E-01	1.56E-02	7.13E-04	1.32E-05	1.46E-07	1.41E-09
165353.00	20.50	2.17E 01	2.22E 00	2.03E-01	1.56E-02	7.14E-04	1.32E-05	1.46E-07	1.42E-09
		2.11E 01	2.21E 00	2.03E-01	1.56E-02	7.14E-04	1.32E-05	1.46E-07	1.42E-09

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 14000°K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal					10.0E-04	10.0E-05	10.0E-06	10.0E-07
		1.0E 01	1.0E 00	1.0E-01	1.0E-02	1.0E-03				
167369.50	20.75	2.10E 01	2.22E 00	2.03E-01	1.56E-02	7.15E-04	1.33E-05	1.33E-05	1.46E-07	1.42E-09
168386.00	21.00	2.11E 01	2.21E 00	2.03E-01	1.56E-02	7.15E-04	1.33E-05	1.33E-05	1.46E-07	1.42E-09
171402.50	21.25	2.11E 01	2.21E 00	2.03E-01	1.56E-02	7.15E-04	1.33E-05	1.33E-05	1.46E-07	1.42E-09
173419.00	21.50	2.11E 01	2.21E 00	2.03E-01	1.56E-02	7.15E-04	1.33E-05	1.33E-05	1.46E-07	1.42E-09
175435.50	21.75	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09
177452.00	22.00	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09
179468.50	22.25	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09
181485.00	22.50	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09
183501.50	22.75	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09
185518.00	23.00	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09
187534.50	23.25	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09
189551.00	23.50	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09
191567.50	23.75	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09
193584.00	24.00	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09
195600.50	24.25	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09
197617.00	24.50	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09
199633.50	24.75	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09
201650.00	25.00	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09
203666.50	25.25	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09
205683.00	25.50	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09
207699.50	25.75	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09
209716.00	26.00	2.12E 01	2.22E 00	2.04E-01	1.57E-02	7.17E-04	1.33E-05	1.33E-05	1.47E-07	1.42E-09

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal									
		1.0E 01	1.0E 00	1.0E -01	1.0E -02	1.0E -03	1.0E -04	1.0E -05	1.0E -06	1.0E -07	
4839.60	0.60	2.21E-01	2.12E-02	1.76E-03	9.99E-05	2.44E-06	2.90E-08	3.01E-10	3.20E-12		
5666.20	0.70	2.21E-01	2.12E-02	1.76E-03	9.99E-05	2.44E-06	2.90E-08	3.01E-10	3.20E-12		
6492.80	0.80	4.34E-01	4.37E-02	3.63E-03	2.06E-04	5.12E-06	5.93E-08	6.13E-10	6.67E-12		
7239.40	0.90	7.06E-01	6.80E-02	5.65E-03	3.21E-04	8.05E-06	9.43E-08	9.74E-10	1.01E-11		
8066.00	1.00	9.60E-01	9.35E-02	7.76E-03	4.41E-04	1.10E-05	1.32E-07	1.35E-09	1.41E-11		
8872.60	1.10	1.24E 00	1.20E-01	9.94E-03	5.65E-04	1.41E-05	1.70E-07	1.74E-09	1.82E-11		
9679.20	1.20	1.51E 00	1.46E-01	1.21E-02	6.88E-04	1.72E-05	2.08E-07	2.13E-09	2.23E-11		
10485.80	1.30	1.77E 00	1.71E-01	1.42E-02	8.06E-04	2.02E-05	2.44E-07	2.50E-09	2.61E-11		
11292.40	1.40	2.04E 00	1.97E-01	1.64E-02	9.30E-04	2.33E-05	2.77E-07	2.83E-09	2.96E-11		
12099.00	1.50	2.28E 00	2.20E-01	1.83E-02	1.04E-03	2.60E-05	3.05E-07	3.11E-09	3.24E-11		
12905.60	1.60	2.51E 00	2.42E-01	2.01E-02	1.14E-03	2.84E-05	3.36E-07	3.41E-09	3.54E-11		
13712.20	1.70	2.70E 00	2.65E-01	2.18E-02	1.24E-03	3.01E-05	3.65E-07	3.70E-09	3.87E-11		
14518.80	1.80	2.92E 00	2.81E-01	2.33E-02	1.33E-03	3.22E-05	3.92E-07	4.01E-09	4.18E-11		
15325.40	1.90	3.11E 00	2.99E-01	2.47E-02	1.41E-03	3.32E-05	4.10E-07	4.27E-09	4.47E-11		
16132.00	2.00	3.29E 00	3.16E-01	2.60E-02	1.48E-03	3.51E-05	4.41E-07	4.51E-09	4.73E-11		
16938.60	2.10	3.42E 00	3.29E-01	2.73E-02	1.55E-03	3.69E-05	4.63E-07	4.74E-09	4.98E-11		
17745.20	2.20	3.62E 00	3.44E-01	2.84E-02	1.62E-03	3.89E-05	4.83E-07	4.95E-09	5.21E-11		
18551.80	2.30	3.86E 00	3.65E-01	3.03E-02	1.73E-03	4.05E-05	5.02E-07	5.16E-09	5.45E-11		
19358.40	2.40	4.01E 00	3.82E-01	3.16E-02	1.79E-03	4.21E-05	5.02E-07	5.16E-09	5.45E-11		
20165.00	2.50	4.19E 00	3.95E-01	3.26E-02	1.85E-03	4.34E-05	5.19E-07	5.34E-09	5.67E-11		
20971.60	2.60	4.33E 00	4.07E-01	3.36E-02	1.91E-03	4.47E-05	5.34E-07	5.50E-09	5.87E-11		
21778.20	2.70	4.47E 00	4.19E-01	3.45E-02	1.96E-03	4.60E-05	5.48E-07	5.64E-09	6.05E-11		
		4.42E 00	4.15E-01	3.45E-02	1.96E-03	4.60E-05	5.48E-07	5.64E-09	6.05E-11		

22584.80	2.80	4.60E 00	4.30E-01	3.54E-02	2.01E-03	5.01E-05	5.06E-07	6.13E-09	6.50E-11
		4.55E 00	4.30E-01	3.54E-02	2.01E-03	5.01E-05	5.06E-07	6.13E-09	6.50E-11
23391.40	2.90	4.73E 00	4.41E-01	3.63E-02	2.06E-03	5.13E-05	6.11E-07	6.29E-09	6.76E-11
		4.67E 00	4.40E-01	3.63E-02	2.06E-03	5.13E-05	6.11E-07	6.29E-09	6.76E-11
24198.00	3.00	4.85E 00	4.51E-01	3.71E-02	2.10E-03	5.25E-05	6.26E-07	6.44E-09	6.95E-11
		4.79E 00	4.51E-01	3.71E-02	2.10E-03	5.25E-05	6.26E-07	6.44E-09	6.95E-11
25004.60	3.10	4.97E 00	4.61E-01	3.79E-02	2.15E-03	5.36E-05	6.39E-07	6.50E-09	7.12E-11
		4.90E 00	4.60E-01	3.79E-02	2.15E-03	5.36E-05	6.39E-07	6.50E-09	7.12E-11
25811.20	3.20	5.08E 00	4.70E-01	3.86E-02	2.19E-03	5.46E-05	6.52E-07	6.71E-09	7.27E-11
		5.01E 00	4.69E-01	3.86E-02	2.19E-03	5.46E-05	6.52E-07	6.71E-09	7.27E-11
26617.80	3.30	5.19E 00	4.79E-01	3.93E-02	2.23E-03	5.56E-05	6.64E-07	6.84E-09	7.42E-11
		5.12E 00	4.78E-01	3.93E-02	2.23E-03	5.56E-05	6.64E-07	6.84E-09	7.42E-11
27424.40	3.40	5.30E 00	4.87E-01	3.99E-02	2.26E-03	5.65E-05	6.75E-07	6.95E-09	7.55E-11
		5.21E 00	4.86E-01	3.99E-02	2.26E-03	5.65E-05	6.75E-07	6.95E-09	7.55E-11
28231.00	3.50	5.42E 00	4.95E-01	4.05E-02	2.29E-03	5.73E-05	6.85E-07	7.06E-09	7.67E-11
		5.32E 00	4.94E-01	4.05E-02	2.29E-03	5.73E-05	6.85E-07	7.06E-09	7.67E-11
29037.60	3.60	5.54E 00	5.03E-01	4.10E-02	2.32E-03	5.80E-05	6.94E-07	7.16E-09	7.78E-11
		5.43E 00	5.01E-01	4.10E-02	2.32E-03	5.80E-05	6.94E-07	7.16E-09	7.78E-11
29844.20	3.70	5.66E 00	5.10E-01	4.16E-02	2.35E-03	5.87E-05	7.03E-07	7.25E-09	7.94E-11
		5.54E 00	5.09E-01	4.16E-02	2.35E-03	5.87E-05	7.03E-07	7.25E-09	7.94E-11
30650.80	3.80	5.78E 00	5.19E-01	4.22E-02	2.38E-03	5.94E-05	7.11E-07	7.35E-09	8.08E-11
		5.66E 00	5.17E-01	4.22E-02	2.38E-03	5.94E-05	7.11E-07	7.35E-09	8.08E-11
31457.40	3.90	5.91E 00	5.27E-01	4.27E-02	2.42E-03	6.02E-05	7.19E-07	7.44E-09	8.23E-11
		5.77E 00	5.25E-01	4.27E-02	2.42E-03	6.02E-05	7.19E-07	7.44E-09	8.23E-11
32264.00	4.00	6.04E 00	5.35E-01	4.33E-02	2.45E-03	6.10E-05	7.28E-07	7.52E-09	8.36E-11
		5.89E 00	5.33E-01	4.33E-02	2.45E-03	6.10E-05	7.28E-07	7.52E-09	8.36E-11
33070.60	4.10	6.17E 00	5.44E-01	4.40E-02	2.48E-03	6.19E-05	7.38E-07	7.61E-09	8.51E-11
		6.02E 00	5.42E-01	4.40E-02	2.48E-03	6.19E-05	7.38E-07	7.61E-09	8.51E-11
33877.20	4.20	6.30E 00	5.53E-01	4.46E-02	2.52E-03	6.28E-05	7.49E-07	7.71E-09	8.65E-11
		6.14E 00	5.51E-01	4.46E-02	2.52E-03	6.28E-05	7.49E-07	7.71E-09	8.65E-11
34683.80	4.30	6.42E 00	5.61E-01	4.52E-02	2.55E-03	6.37E-05	7.60E-07	7.83E-09	8.80E-11
		6.26E 00	5.59E-01	4.52E-02	2.55E-03	6.37E-05	7.60E-07	7.83E-09	8.80E-11
35490.40	4.40	6.54E 00	5.69E-01	4.58E-02	2.59E-03	6.46E-05	7.70E-07	7.94E-09	8.95E-11
		6.38E 00	5.67E-01	4.58E-02	2.59E-03	6.46E-05	7.70E-07	7.94E-09	8.95E-11
36297.00	4.50	6.66E 00	5.77E-01	4.64E-02	2.62E-03	6.54E-05	7.80E-07	8.03E-09	9.10E-11
		6.49E 00	5.75E-01	4.64E-02	2.62E-03	6.54E-05	7.80E-07	8.03E-09	9.10E-11
37103.60	4.60	6.77E 00	5.84E-01	4.69E-02	2.65E-03	6.61E-05	7.90E-07	8.15E-09	9.24E-11
		6.60E 00	5.82E-01	4.69E-02	2.65E-03	6.61E-05	7.90E-07	8.15E-09	9.24E-11
37910.20	4.70	6.87E 00	5.92E-01	4.74E-02	2.68E-03	6.69E-05	7.99E-07	8.25E-09	9.37E-11
		6.70E 00	5.89E-01	4.74E-02	2.68E-03	6.69E-05	7.99E-07	8.25E-09	9.37E-11
38716.80	4.80	6.98E 00	5.98E-01	4.79E-02	2.70E-03	6.76E-05	8.08E-07	8.34E-09	9.49E-11
		6.81E 00	5.96E-01	4.79E-02	2.70E-03	6.76E-05	8.08E-07	8.34E-09	9.49E-11
39523.40	4.90	7.08E 00	6.05E-01	4.84E-02	2.73E-03	6.82E-05	8.16E-07	8.43E-09	9.61E-11
		6.91E 00	6.03E-01	4.84E-02	2.73E-03	6.82E-05	8.16E-07	8.43E-09	9.61E-11
40330.00	5.00	7.17E 00	6.11E-01	4.89E-02	2.76E-03	6.89E-05	8.24E-07	8.51E-09	9.72E-11
		7.00E 00	6.09E-01	4.89E-02	2.76E-03	6.89E-05	8.24E-07	8.51E-09	9.72E-11
41136.60	5.10	7.27E 00	6.17E-01	4.93E-02	2.78E-03	6.95E-05	8.32E-07	8.60E-09	9.83E-11
		7.09E 00	6.15E-01	4.93E-02	2.78E-03	6.95E-05	8.32E-07	8.60E-09	9.83E-11
41943.20	5.20	7.36E 00	6.23E-01	4.97E-02	2.80E-03	7.01E-05	8.39E-07	8.68E-09	9.93E-11
		7.18E 00	6.21E-01	4.97E-02	2.80E-03	7.01E-05	8.39E-07	8.68E-09	9.93E-11

PARTIAL PLANK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR 1000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal				
		1.0E 01	1.0E 00	1.0E-01	1.0E-02	1.0E-03
42749.80	5.30	7.44E 00	6.29E-01	5.05E-02	2.82E-03	7.07E-05
42750.00		7.27E 00	6.27E-01	5.01E-02	2.82E-03	7.07E-05
43556.40	5.40	7.53E 00	6.34E-01	5.05E-02	2.85E-03	7.12E-05
43557.00		7.35E 00	6.32E-01	5.05E-02	2.85E-03	7.12E-05
44363.00	5.50	7.61E 00	6.40E-01	5.09E-02	2.87E-03	7.17E-05
44364.00		7.43E 00	6.37E-01	5.09E-02	2.87E-03	7.17E-05
45169.60	5.60	7.69E 00	6.45E-01	5.12E-02	2.89E-03	7.22E-05
45170.00		7.51E 00	6.42E-01	5.12E-02	2.89E-03	7.22E-05
45976.20	5.70	7.77E 00	6.50E-01	5.16E-02	2.90E-03	7.27E-05
45977.00		7.59E 00	6.47E-01	5.16E-02	2.90E-03	7.27E-05
46782.80	5.80	7.83E 00	6.55E-01	5.19E-02	2.92E-03	7.32E-05
46783.00		7.67E 00	6.52E-01	5.19E-02	2.92E-03	7.32E-05
47589.40	5.90	7.91E 00	6.60E-01	5.23E-02	2.94E-03	7.37E-05
47590.00		7.75E 00	6.57E-01	5.22E-02	2.94E-03	7.37E-05
48396.00	6.00	8.01E 00	6.64E-01	5.26E-02	2.96E-03	7.41E-05
48397.00		7.85E 00	6.62E-01	5.25E-02	2.96E-03	7.41E-05
49202.60	6.10	8.08E 00	6.69E-01	5.29E-02	2.97E-03	7.45E-05
49203.00		7.90E 00	6.66E-01	5.28E-02	2.97E-03	7.45E-05
50009.20	6.20	8.16E 00	6.73E-01	5.32E-02	2.99E-03	7.49E-05
50010.00		7.97E 00	6.71E-01	5.31E-02	2.99E-03	7.49E-05
50815.80	6.30	8.23E 00	6.77E-01	5.34E-02	3.01E-03	7.53E-05
50816.00		8.04E 00	6.75E-01	5.34E-02	3.01E-03	7.53E-05
51622.40	6.40	8.29E 00	6.81E-01	5.37E-02	3.02E-03	7.57E-05
51623.00		8.11E 00	6.79E-01	5.37E-02	3.02E-03	7.57E-05
52429.00	6.50	8.36E 00	6.85E-01	5.40E-02	3.04E-03	7.61E-05
52430.00		8.17E 00	6.83E-01	5.39E-02	3.03E-03	7.61E-05
53235.60	6.60	8.43E 00	6.89E-01	5.42E-02	3.05E-03	7.64E-05
53236.00		8.25E 00	6.86E-01	5.42E-02	3.05E-03	7.64E-05
54042.20	6.70	8.49E 00	6.92E-01	5.45E-02	3.06E-03	7.68E-05
54043.00		8.29E 00	6.90E-01	5.44E-02	3.06E-03	7.68E-05
54848.80	6.80	8.55E 00	6.96E-01	5.47E-02	3.08E-03	7.71E-05
54849.00		8.35E 00	6.93E-01	5.47E-02	3.07E-03	7.71E-05
55655.40	6.90	8.61E 00	6.99E-01	5.49E-02	3.09E-03	7.74E-05
55656.00		8.40E 00	6.97E-01	5.49E-02	3.09E-03	7.74E-05
56462.00	7.00	8.66E 00	7.03E-01	5.52E-02	3.10E-03	7.77E-05
56463.00		8.46E 00	7.00E-01	5.51E-02	3.10E-03	7.77E-05
57268.60	7.10	8.72E 00	7.06E-01	5.54E-02	3.11E-03	7.80E-05
57269.00		8.51E 00	7.03E-01	5.53E-02	3.11E-03	7.80E-05
58075.20	7.20	8.77E 00	7.09E-01	5.56E-02	3.12E-03	7.83E-05
58076.00		8.56E 00	7.06E-01	5.55E-02	3.12E-03	7.83E-05
58881.80	7.30	8.82E 00	7.12E-01	5.58E-02	3.13E-03	7.86E-05
58882.00		8.61E 00	7.09E-01	5.57E-02	3.13E-03	7.86E-05
59688.40	7.40	8.87E 00	7.14E-01	5.60E-02	3.14E-03	7.88E-05
59689.00		8.65E 00	7.12E-01	5.59E-02	3.14E-03	7.88E-05

60495.00	7.50	8.91E-08	7.17E-01	5.62E-02	3.15E-03	7.91E-05	9.33E-07	9.92E-07	1.19E-10
		8.70E-08	7.14E-01	5.61E-02	3.15E-03	7.91E-05	9.33E-07	9.92E-07	1.19E-10
61301.60	7.60	8.96E-08	7.20E-01	5.63E-02	3.16E-03	7.93E-05	9.36E-07	9.96E-07	1.20E-10
		8.74E-08	7.17E-01	5.63E-02	3.16E-03	7.93E-05	9.36E-07	9.96E-07	1.20E-10
62108.20	7.70	9.00E-08	7.22E-01	5.65E-02	3.17E-03	7.96E-05	9.39E-07	9.99E-07	1.20E-10
		8.78E-08	7.20E-01	5.65E-02	3.17E-03	7.96E-05	9.39E-07	9.99E-07	1.20E-10
62914.80	7.80	9.05E-08	7.25E-01	5.67E-02	3.18E-03	7.98E-05	9.42E-07	1.00E-08	1.21E-10
		8.82E-08	7.22E-01	5.66E-02	3.18E-03	7.98E-05	9.42E-07	1.00E-08	1.21E-10
63721.40	7.90	9.09E-08	7.27E-01	5.68E-02	3.19E-03	8.00E-05	9.44E-07	1.01E-08	1.21E-10
		8.86E-08	7.24E-01	5.68E-02	3.19E-03	8.00E-05	9.44E-07	1.01E-08	1.21E-10
64528.00	8.00	9.13E-08	7.29E-01	5.70E-02	3.20E-03	8.02E-05	9.47E-07	1.01E-08	1.22E-10
		8.90E-08	7.26E-01	5.69E-02	3.20E-03	8.02E-05	9.47E-07	1.01E-08	1.22E-10
65334.60	8.10	9.17E-08	7.31E-01	5.71E-02	3.21E-03	8.04E-05	9.49E-07	1.01E-08	1.22E-10
		8.93E-08	7.29E-01	5.71E-02	3.21E-03	8.04E-05	9.49E-07	1.01E-08	1.22E-10
66141.20	8.20	9.20E-08	7.34E-01	5.72E-02	3.21E-03	8.06E-05	9.52E-07	1.01E-08	1.23E-10
		8.96E-08	7.31E-01	5.72E-02	3.21E-03	8.06E-05	9.52E-07	1.01E-08	1.23E-10
66947.80	8.30	9.24E-08	7.36E-01	5.74E-02	3.22E-03	8.08E-05	9.54E-07	1.02E-08	1.23E-10
		9.00E-08	7.33E-01	5.73E-02	3.22E-03	8.08E-05	9.54E-07	1.02E-08	1.23E-10
67754.40	8.40	9.28E-08	7.37E-01	5.75E-02	3.23E-03	8.10E-05	9.57E-07	1.02E-08	1.23E-10
		9.03E-08	7.34E-01	5.75E-02	3.23E-03	8.10E-05	9.57E-07	1.02E-08	1.23E-10
68561.00	8.50	9.31E-08	7.39E-01	5.76E-02	3.23E-03	8.12E-05	9.59E-07	1.02E-08	1.24E-10
		9.06E-08	7.36E-01	5.76E-02	3.23E-03	8.12E-05	9.59E-07	1.02E-08	1.24E-10
69367.60	8.60	9.34E-08	7.41E-01	5.78E-02	3.24E-03	8.13E-05	9.61E-07	1.02E-08	1.24E-10
		9.09E-08	7.38E-01	5.77E-02	3.24E-03	8.13E-05	9.61E-07	1.02E-08	1.24E-10
70174.20	8.70	9.38E-08	7.43E-01	5.79E-02	3.25E-03	8.15E-05	9.63E-07	1.03E-08	1.25E-10
		9.11E-08	7.40E-01	5.78E-02	3.25E-03	8.15E-05	9.63E-07	1.03E-08	1.25E-10
70980.80	8.80	9.41E-08	7.44E-01	5.80E-02	3.25E-03	8.17E-05	9.65E-07	1.03E-08	1.25E-10
		9.14E-08	7.41E-01	5.79E-02	3.25E-03	8.16E-05	9.65E-07	1.03E-08	1.25E-10
71787.40	8.90	9.44E-08	7.46E-01	5.81E-02	3.26E-03	8.18E-05	9.67E-07	1.03E-08	1.26E-10
		9.16E-08	7.43E-01	5.80E-02	3.26E-03	8.18E-05	9.67E-07	1.03E-08	1.26E-10
72594.00	9.00	9.47E-08	7.48E-01	5.82E-02	3.26E-03	8.19E-05	9.69E-07	1.03E-08	1.26E-10
		9.19E-08	7.44E-01	5.81E-02	3.26E-03	8.19E-05	9.69E-07	1.03E-08	1.26E-10
73400.60	9.10	9.50E-08	7.49E-01	5.83E-02	3.27E-03	8.21E-05	9.70E-07	1.03E-08	1.27E-10
		9.21E-08	7.46E-01	5.82E-02	3.27E-03	8.21E-05	9.70E-07	1.03E-08	1.27E-10
74207.20	9.20	9.53E-08	7.52E-01	5.85E-02	3.28E-03	8.23E-05	9.72E-07	1.04E-08	1.27E-10
		9.25E-08	7.48E-01	5.84E-02	3.28E-03	8.23E-05	9.72E-07	1.04E-08	1.27E-10
75013.80	9.30	9.57E-08	7.54E-01	5.87E-02	3.29E-03	8.25E-05	9.74E-07	1.04E-08	1.28E-10
		9.28E-08	7.51E-01	5.86E-02	3.29E-03	8.25E-05	9.74E-07	1.04E-08	1.28E-10
75820.40	9.40	9.61E-08	7.57E-01	5.88E-02	3.30E-03	8.26E-05	9.76E-07	1.04E-08	1.28E-10
		9.31E-08	7.53E-01	5.88E-02	3.30E-03	8.26E-05	9.76E-07	1.04E-08	1.28E-10
76627.00	9.50	9.65E-08	7.59E-01	5.90E-02	3.31E-03	8.31E-05	9.78E-07	1.05E-08	1.29E-10
		9.34E-08	7.55E-01	5.90E-02	3.31E-03	8.31E-05	9.78E-07	1.05E-08	1.29E-10
77433.60	9.60	9.68E-08	7.61E-01	5.92E-02	3.32E-03	8.33E-05	1.00E-06	1.05E-08	1.29E-10
		9.37E-08	7.57E-01	5.91E-02	3.32E-03	8.33E-05	1.00E-06	1.05E-08	1.29E-10
78240.20	9.70	9.72E-08	7.63E-01	5.93E-02	3.33E-03	8.35E-05	1.01E-06	1.05E-08	1.29E-10
		9.40E-08	7.60E-01	5.93E-02	3.33E-03	8.35E-05	1.01E-06	1.05E-08	1.29E-10
79046.80	9.80	9.75E-08	7.65E-01	5.95E-02	3.33E-03	8.37E-05	1.01E-06	1.05E-08	1.30E-10
		9.43E-08	7.62E-01	5.94E-02	3.33E-03	8.37E-05	1.01E-06	1.05E-08	1.30E-10
79853.40	9.90	9.78E-08	7.67E-01	5.96E-02	3.34E-03	8.39E-05	1.01E-06	1.06E-08	1.30E-10
		9.45E-08	7.63E-01	5.96E-02	3.34E-03	8.39E-05	1.01E-06	1.06E-08	1.30E-10

5 PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 1600° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal									
		1.0E 01	1.0E 00	1.0E-01	10.0E-01	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07	
80660.00	10.00	9.61E 00	7.69E-01	5.98E-02	3.35E-03	0.41E-03	1.01E-04	1.06E-05	1.06E-06	1.31E-10	
947E 00		9.47E 00	7.65E-01	5.97E-02	3.35E-03	0.41E-03	1.01E-04	1.06E-05	1.06E-06	1.31E-10	
81466.60	10.10	9.64E 00	7.71E-01	5.99E-02	3.36E-03	0.43E-03	1.01E-04	1.06E-05	1.06E-06	1.31E-10	
950E 00		9.50E 00	7.67E-01	5.98E-02	3.36E-03	0.43E-03	1.01E-04	1.06E-05	1.06E-06	1.31E-10	
82273.20	10.20	9.67E 00	7.73E-01	6.00E-02	3.36E-03	0.45E-03	1.02E-04	1.07E-05	1.07E-06	1.32E-10	
952E 00		9.52E 00	7.69E-01	6.00E-02	3.36E-03	0.45E-03	1.02E-04	1.07E-05	1.07E-06	1.32E-10	
83079.80	10.30	9.90E 00	7.74E-01	6.02E-02	3.37E-03	0.46E-03	1.02E-04	1.07E-05	1.07E-06	1.32E-10	
954E 00		9.54E 00	7.70E-01	6.02E-02	3.37E-03	0.46E-03	1.02E-04	1.07E-05	1.07E-06	1.32E-10	
83966.40	10.40	9.93E 00	7.76E-01	6.02E-02	3.38E-03	0.48E-03	1.02E-04	1.07E-05	1.07E-06	1.32E-10	
956E 00		9.56E 00	7.72E-01	6.02E-02	3.38E-03	0.48E-03	1.02E-04	1.07E-05	1.07E-06	1.32E-10	
84693.00	10.50	9.95E 00	7.77E-01	6.03E-02	3.38E-03	0.49E-03	1.02E-04	1.07E-05	1.07E-06	1.32E-10	
958E 00		9.58E 00	7.73E-01	6.03E-02	3.38E-03	0.49E-03	1.02E-04	1.07E-05	1.07E-06	1.32E-10	
85499.60	10.60	9.98E 00	7.79E-01	6.05E-02	3.39E-03	0.51E-03	1.02E-04	1.07E-05	1.07E-06	1.32E-10	
960E 00		9.60E 00	7.75E-01	6.04E-02	3.39E-03	0.51E-03	1.02E-04	1.07E-05	1.07E-06	1.32E-10	
86306.20	10.70	1.11E 01	8.84E-01	6.91E-02	3.67E-03	0.54E-03	1.03E-04	1.08E-05	1.08E-06	1.33E-10	
107E 01		1.07E 01	8.80E-01	6.91E-02	3.67E-03	0.54E-03	1.03E-04	1.08E-05	1.08E-06	1.33E-10	
88726.00	11.00	1.23E 01	1.01E 00	7.95E-02	4.45E-03	9.94E-04	1.20E-04	1.25E-05	1.25E-06	1.53E-10	
119E 01		1.19E 01	1.01E 00	7.95E-02	4.45E-03	9.94E-04	1.20E-04	1.25E-05	1.25E-06	1.53E-10	
98742.50	11.25	1.33E 01	1.11E 00	8.79E-02	4.92E-03	1.11E-04	1.34E-04	1.40E-05	1.40E-06	1.68E-10	
130E 01		1.30E 01	1.11E 00	8.79E-02	4.91E-03	1.11E-04	1.34E-04	1.40E-05	1.40E-06	1.68E-10	
92759.00	11.50	1.43E 01	1.20E 00	9.54E-02	5.33E-03	1.21E-04	1.46E-04	1.53E-05	1.53E-06	1.82E-10	
139E 01		1.39E 01	1.20E 00	9.53E-02	5.33E-03	1.21E-04	1.46E-04	1.53E-05	1.53E-06	1.82E-10	
94775.50	11.75	1.51E 01	1.28E 00	1.02E-01	5.70E-03	1.39E-04	1.57E-04	1.64E-05	1.64E-06	1.94E-10	
147E 01		1.47E 01	1.28E 00	1.02E-01	5.70E-03	1.39E-04	1.57E-04	1.64E-05	1.64E-06	1.94E-10	
96792.00	12.00	1.78E 01	1.56E 00	1.25E-01	6.96E-03	1.63E-04	1.67E-04	1.74E-05	1.74E-06	2.04E-10	
174E 01		1.74E 01	1.55E 00	1.25E-01	6.95E-03	1.63E-04	1.67E-04	1.74E-05	1.74E-06	2.04E-10	
98608.50	12.25	2.03E 01	1.80E 00	1.45E-01	8.07E-03	1.89E-04	2.00E-04	2.08E-05	2.08E-06	2.39E-10	
199E 01		1.99E 01	1.80E 00	1.45E-01	8.07E-03	1.89E-04	2.00E-04	2.08E-05	2.08E-06	2.39E-10	
100825.00	12.50	2.24E 01	2.02E 00	1.63E-01	9.06E-03	2.12E-04	2.30E-04	2.38E-05	2.38E-06	2.69E-10	
220F 01		2.20E 01	2.01E 00	1.63E-01	9.06E-03	2.12E-04	2.30E-04	2.38E-05	2.38E-06	2.69E-10	
102841.50	12.75	2.45E 01	2.22E 00	1.80E-01	1.00E-02	2.31E-04	2.59E-04	2.65E-05	2.65E-06	2.97E-10	
241E 01		2.41E 01	2.22E 00	1.80E-01	1.00E-02	2.31E-04	2.59E-04	2.65E-05	2.65E-06	2.97E-10	
104858.00	13.00	2.64E 01	2.41E 00	1.95E-01	1.09E-02	2.58E-04	2.83E-04	2.91E-05	2.91E-06	3.23E-10	
260E 01		2.60E 01	2.40E 00	1.95E-01	1.09E-02	2.58E-04	2.83E-04	2.91E-05	2.91E-06	3.23E-10	
106874.50	13.25	2.80E 01	2.57E 00	2.08E-01	1.16E-02	2.74E-04	3.06E-04	3.14E-05	3.14E-06	3.45E-10	
280E 01		2.76E 01	2.57E 00	2.08E-01	1.16E-02	2.74E-04	3.06E-04	3.14E-05	3.14E-06	3.45E-10	
108891.00	13.50	3.00E 01	2.77E 00	2.25E-01	1.26E-02	2.99E-04	3.37E-04	3.45E-05	3.45E-06	3.65E-10	
296E 01		2.96E 01	2.76E 00	2.25E-01	1.26E-02	2.99E-04	3.37E-04	3.45E-05	3.45E-06	3.65E-10	
110907.50	13.75	3.17E 01	2.94E 00	2.39E-01	1.34E-02	3.21E-04	3.64E-04	3.62E-05	3.62E-06	3.94E-10	
313E 01		3.13E 01	2.93E 00	2.39E-01	1.34E-02	3.21E-04	3.64E-04	3.62E-05	3.62E-06	3.94E-10	
112924.00	14.00	3.33E 01	3.14E 00	2.56E-01	1.44E-02	3.45E-04	3.96E-04	3.94E-05	3.94E-06	4.20E-10	
333E 01		3.33E 01	3.13E 00	2.56E-01	1.44E-02	3.45E-04	3.96E-04	3.94E-05	3.94E-06	4.20E-10	
114940.50	14.25	3.55E 01	3.32E 00	2.71E-01	1.52E-02	3.68E-04	4.23E-04	4.22E-05	4.22E-06	4.49E-10	
351E 01		3.51E 01	3.31E 00	2.71E-01	1.52E-02	3.68E-04	4.23E-04	4.22E-05	4.22E-06	4.49E-10	

116957.00	14.50	3.87E 01	3.64E 00	3.06E-01	1.71E-02	4.11E-04	4.74E-06	4.76E-08	4.74E-10
		3.83E 01	3.43E 00	3.04E-01	1.71E-02	4.11E-04	4.76E-06	4.76E-08	4.74E-10
116973.50	14.75	4.17E 01	3.93E 00	3.38E-01	1.87E-02	4.50E-04	5.22E-06	5.23E-08	5.21E-10
		4.13E 01	3.93E 00	3.38E-01	1.87E-02	4.50E-04	5.22E-06	5.23E-08	5.21E-10
120990.00	15.00	4.43E 01	4.19E 00	3.66E-01	2.02E-02	4.85E-04	5.65E-06	5.67E-08	5.64E-10
		4.39E 01	4.18E 00	3.66E-01	2.02E-02	4.85E-04	5.65E-06	5.67E-08	5.64E-10
123006.50	15.25	4.62E 01	4.41E 00	3.91E-01	2.15E-02	5.16E-04	6.02E-06	6.03E-08	6.02E-10
		4.62E 01	4.41E 00	3.91E-01	2.15E-02	5.16E-04	6.02E-06	6.03E-08	6.02E-10
125023.00	15.50	4.86E 01	4.62E 00	4.13E-01	2.26E-02	5.43E-04	6.36E-06	6.37E-08	6.35E-10
		4.82E 01	4.61E 00	4.13E-01	2.26E-02	5.43E-04	6.36E-06	6.37E-08	6.35E-10
127039.50	15.75	5.04E 01	4.80E 00	4.32E-01	2.36E-02	5.67E-04	6.65E-06	6.66E-08	6.64E-10
		5.00E 01	4.79E 00	4.32E-01	2.36E-02	5.67E-04	6.65E-06	6.66E-08	6.64E-10
129056.00	16.00	5.19E 01	4.95E 00	4.49E-01	2.45E-02	5.88E-04	6.90E-06	6.91E-08	6.90E-10
		5.15E 01	4.95E 00	4.49E-01	2.45E-02	5.88E-04	6.90E-06	6.91E-08	6.90E-10
131072.50	16.25	5.33E 01	5.06E 00	4.63E-01	2.53E-02	6.04E-04	7.13E-06	7.14E-08	7.12E-10
		5.29E 01	5.06E 00	4.63E-01	2.53E-02	6.04E-04	7.13E-06	7.14E-08	7.12E-10
133089.00	16.50	5.45E 01	5.20E 00	4.76E-01	2.59E-02	6.22E-04	7.32E-06	7.33E-08	7.32E-10
		5.41E 01	5.20E 00	4.76E-01	2.59E-02	6.22E-04	7.32E-06	7.33E-08	7.32E-10
135105.50	16.75	5.56E 01	5.31E 00	4.88E-01	2.63E-02	6.37E-04	7.49E-06	7.50E-08	7.49E-10
		5.52E 01	5.31E 00	4.88E-01	2.63E-02	6.37E-04	7.49E-06	7.50E-08	7.49E-10
137121.00	17.00	5.65E 01	5.40E 00	4.98E-01	2.71E-02	6.55E-04	7.65E-06	7.66E-08	7.65E-10
		5.61E 01	5.40E 00	4.98E-01	2.71E-02	6.55E-04	7.65E-06	7.66E-08	7.65E-10
139138.50	17.25	5.73E 01	5.48E 00	5.07E-01	2.75E-02	6.61E-04	7.79E-06	7.80E-08	7.79E-10
		5.69E 01	5.48E 00	5.07E-01	2.75E-02	6.61E-04	7.79E-06	7.80E-08	7.79E-10
141153.00	17.50	5.80E 01	5.55E 00	5.14E-01	2.79E-02	6.71E-04	7.91E-06	7.92E-08	7.91E-10
		5.76E 01	5.55E 00	5.14E-01	2.79E-02	6.71E-04	7.91E-06	7.92E-08	7.91E-10
143171.50	17.75	5.86E 01	5.62E 00	5.21E-01	2.83E-02	6.80E-04	8.01E-06	8.02E-08	8.01E-10
		5.83E 01	5.61E 00	5.21E-01	2.83E-02	6.80E-04	8.01E-06	8.02E-08	8.01E-10
145188.00	18.00	5.92E 01	5.67E 00	5.27E-01	2.86E-02	6.87E-04	8.10E-06	8.11E-08	8.11E-10
		5.88E 01	5.66E 00	5.26E-01	2.86E-02	6.87E-04	8.10E-06	8.11E-08	8.11E-10
147204.50	18.25	5.96E 01	5.71E 00	5.31E-01	2.89E-02	6.93E-04	8.18E-06	8.19E-08	8.19E-10
		5.92E 01	5.71E 00	5.31E-01	2.89E-02	6.93E-04	8.18E-06	8.19E-08	8.19E-10
149221.00	18.50	6.00E 01	5.76E 00	5.36E-01	2.91E-02	6.99E-04	8.25E-06	8.26E-08	8.25E-10
		5.97E 01	5.75E 00	5.36E-01	2.91E-02	6.99E-04	8.25E-06	8.26E-08	8.25E-10
151237.50	18.75	6.04E 01	5.79E 00	5.40E-01	2.93E-02	7.04E-04	8.31E-06	8.32E-08	8.32E-10
		6.00E 01	5.79E 00	5.40E-01	2.93E-02	7.04E-04	8.31E-06	8.32E-08	8.32E-10
153254.00	19.00	6.07E 01	5.82E 00	5.43E-01	2.95E-02	7.08E-04	8.36E-06	8.37E-08	8.37E-10
		6.03E 01	5.82E 00	5.43E-01	2.95E-02	7.08E-04	8.36E-06	8.37E-08	8.37E-10
155270.50	19.25	6.10E 01	5.85E 00	5.46E-01	2.96E-02	7.12E-04	8.41E-06	8.42E-08	8.42E-10
		6.06E 01	5.84E 00	5.46E-01	2.96E-02	7.12E-04	8.41E-06	8.42E-08	8.42E-10
157287.00	19.50	6.12E 01	5.87E 00	5.48E-01	2.97E-02	7.15E-04	8.45E-06	8.46E-08	8.46E-10
		6.08E 01	5.87E 00	5.48E-01	2.97E-02	7.15E-04	8.45E-06	8.46E-08	8.46E-10
159303.50	19.75	6.14E 01	5.89E 00	5.50E-01	2.99E-02	7.18E-04	8.49E-06	8.49E-08	8.49E-10
		6.10E 01	5.89E 00	5.50E-01	2.99E-02	7.18E-04	8.49E-06	8.49E-08	8.49E-10
161320.00	20.00	6.16E 01	5.91E 00	5.52E-01	2.99E-02	7.20E-04	8.51E-06	8.52E-08	8.52E-10
		6.12E 01	5.90E 00	5.52E-01	2.99E-02	7.20E-04	8.51E-06	8.52E-08	8.52E-10
163336.50	20.25	6.17E 01	5.92E 00	5.54E-01	3.00E-02	7.23E-04	8.54E-06	8.55E-08	8.55E-10
		6.13E 01	5.92E 00	5.54E-01	3.00E-02	7.23E-04	8.54E-06	8.55E-08	8.55E-10
165353.00	20.50	6.19E 01	5.94E 00	5.55E-01	3.01E-02	7.26E-04	8.56E-06	8.57E-08	8.57E-10
		6.15E 01	5.93E 00	5.55E-01	3.01E-02	7.26E-04	8.56E-06	8.57E-08	8.57E-10

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR, 16000° K

Wavelength Num. r (cm ⁻¹)	Photon Energy (eV)	1.0E 00	1.0E 00	1.0E 01	10.0E-03	10.0E-04	10.0E-03	10.0E-06	10.0E-07
167369.50	20.75	6.20E 01	5.95E 00	5.56E-01	3.02E-02	7.26E-04	8.58E-06	6.67E-08	8.59E-10
168388.00	21.00	6.16E 01	5.94E 00	5.56E-01	3.02E-02	7.26E-04	8.58E-06	6.67E-08	8.59E-10
171402.50	21.25	6.17E 01	5.95E 00	5.57E-01	3.02E-02	7.28E-04	8.60E-06	6.69E-08	8.61E-10
173419.00	21.50	6.18E 01	5.96E 00	5.58E-01	3.03E-02	7.29E-04	8.62E-06	6.70E-08	8.63E-10
175435.50	21.75	6.19E 01	5.97E 00	5.59E-01	3.03E-02	7.30E-04	8.63E-06	6.71E-08	8.64E-10
177452.00	22.00	6.20E 01	5.98E 00	5.60E-01	3.04E-02	7.31E-04	8.64E-06	6.73E-08	8.65E-10
179468.50	22.25	6.21E 01	5.99E 00	5.61E-01	3.04E-02	7.32E-04	8.65E-06	6.74E-08	8.66E-10
181485.00	22.50	6.22E 01	6.00E 00	5.62E-01	3.05E-02	7.33E-04	8.67E-06	6.75E-08	8.67E-10
183501.50	22.75	6.23E 01	6.00E 00	5.62E-01	3.05E-02	7.33E-04	8.67E-06	6.75E-08	8.67E-10
185518.00	23.00	6.24E 01	6.01E 00	5.63E-01	3.05E-02	7.34E-04	8.68E-06	6.76E-08	8.68E-10
187534.50	23.25	6.25E 01	6.01E 00	5.63E-01	3.05E-02	7.34E-04	8.68E-06	6.76E-08	8.68E-10
189551.00	23.50	6.26E 01	6.01E 00	5.63E-01	3.05E-02	7.35E-04	8.69E-06	6.77E-08	8.69E-10
191567.50	23.75	6.27E 01	6.01E 00	5.63E-01	3.05E-02	7.35E-04	8.69E-06	6.77E-08	8.69E-10
193584.00	24.00	6.28E 01	6.01E 00	5.63E-01	3.06E-02	7.35E-04	8.69E-06	6.78E-08	8.70E-10
195600.50	24.25	6.29E 01	6.01E 00	5.63E-01	3.06E-02	7.35E-04	8.70E-06	6.78E-08	8.71E-10
197617.00	24.50	6.29E 01	6.01E 00	5.64E-01	3.06E-02	7.36E-04	8.70E-06	6.78E-08	8.71E-10
199633.50	24.75	6.29E 01	6.02E 00	5.64E-01	3.06E-02	7.36E-04	8.70E-06	6.78E-08	8.71E-10
201650.00	25.00	6.29E 01	6.02E 00	5.64E-01	3.06E-02	7.36E-04	8.70E-06	6.78E-08	8.71E-10
203666.50	25.25	6.29E 01	6.02E 00	5.64E-01	3.06E-02	7.36E-04	8.71E-06	6.78E-08	8.71E-10
205683.00	25.50	6.29E 01	6.02E 00	5.64E-01	3.06E-02	7.36E-04	8.71E-06	6.78E-08	8.71E-10
207699.50	25.75	6.29E 01	6.02E 00	5.64E-01	3.06E-02	7.36E-04	8.71E-06	6.78E-08	8.71E-10
209716.00	26.00	6.29E 01	6.02E 00	5.64E-01	3.06E-02	7.36E-04	8.71E-06	6.78E-08	8.71E-10

211732.50	26.25	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
213749.00	26.50	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
215765.50	26.75	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
217782.00	27.00	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
219798.50	27.25	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
221815.00	27.50	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
223831.50	27.75	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
225848.00	28.00	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
227864.50	28.25	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
229881.00	28.50	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
231897.50	28.75	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
233914.00	29.00	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
235930.50	29.25	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
237947.00	29.50	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
239963.50	29.75	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
241980.00	30.00	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
243996.50	30.25	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
246013.00	30.50	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
248029.50	30.75	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
250046.00	31.00	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
252062.50	31.25	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
254079.00	31.50	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
256095.50	31.75	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
258112.00	32.00	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10
260128.50	32.25	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.71E-06	8.81E-08	8.83E-10

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 1000°K

Waves Number (cm ⁻¹)	Photon Energy (eV)	1.0E-01	1.0E-00	1.0E-01	1.0E-01	10.0E-01	10.0E-04	10.0E-03	10.0E-06	10.0E-07
262148.00	32.50	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.75E-06	9.11E-08	9.11E-08	1.19E-09
264181.50	32.75	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.75E-06	9.11E-08	9.11E-08	1.19E-09
266178.00	33.00	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.75E-06	9.11E-08	9.11E-08	1.19E-09
268194.50	33.25	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.75E-06	9.11E-08	9.11E-08	1.19E-09
270211.00	33.50	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.75E-06	9.11E-08	9.11E-08	1.19E-09
272237.50	33.75	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.75E-06	9.11E-08	9.11E-08	1.19E-09
274264.00	34.00	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.75E-06	9.11E-08	9.11E-08	1.19E-09
276289.50	34.25	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.75E-06	9.11E-08	9.11E-08	1.19E-09
278377.00	34.50	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.75E-06	9.11E-08	9.11E-08	1.19E-09
280338.50	34.75	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.75E-06	9.11E-08	9.11E-08	1.19E-09
282310.00	35.00	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.75E-06	9.11E-08	9.11E-08	1.19E-09
284356.50	35.25	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.75E-06	9.11E-08	9.11E-08	1.19E-09
286343.00	35.50	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.75E-06	9.11E-08	9.11E-08	1.19E-09
288356.50	35.75	6.27E-01	6.02E-00	5.64E-01	3.06E-02	7.37E-04	8.75E-06	9.11E-08	9.11E-08	1.19E-09

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 18000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density × Normal									
		1.0E 01	1.0E 00	1.0E-01	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07	10.0E-08	
4839.60	0.60	4.63E-01	4.15E-02	2.92E-03	1.10E-04	1.69E-06	1.77E-05	1.99E-10	3.29E-12	3.29E-12	
4.63E-01		4.15E-02	2.92E-03	1.10E-04	1.69E-06	1.77E-05	1.99E-10	3.29E-12	3.29E-12	3.29E-12	
5646.20	0.70	9.47E-01	8.51E-02	5.99E-03	2.26E-04	3.50E-06	3.59E-05	4.03E-10	6.51E-12	6.51E-12	
9.47E-01		8.51E-02	5.99E-03	2.26E-04	3.50E-06	3.59E-05	4.03E-10	6.51E-12	6.51E-12	6.51E-12	
6452.80	0.80	1.46E 00	1.32E-01	9.28E-03	3.50E-04	5.45E-06	5.64E-05	6.28E-10	9.64E-12	9.64E-12	
1.46E 00		1.32E-01	9.28E-03	3.50E-04	5.45E-06	5.64E-05	6.28E-10	9.64E-12	9.64E-12	9.64E-12	
7259.40	0.90	2.00E 00	1.80E-01	1.27E-02	4.78E-04	7.47E-06	7.81E-05	8.58E-10	1.30E-11	1.30E-11	
2.00E 00		1.80E-01	1.27E-02	4.78E-04	7.47E-06	7.81E-05	8.58E-10	1.30E-11	1.30E-11	1.30E-11	
8066.00	1.00	2.75E 00	2.30E-01	1.62E-02	6.10E-04	9.55E-06	1.00E-07	1.10E-09	1.62E-11	1.62E-11	
2.75E 00		2.30E-01	1.62E-02	6.10E-04	9.55E-06	1.00E-07	1.10E-09	1.62E-11	1.62E-11	1.62E-11	
8472.60	1.10	3.10E 00	2.80E-01	1.97E-02	7.42E-04	1.16E-05	1.22E-07	1.33E-09	1.94E-11	1.94E-11	
3.10E 00		2.80E-01	1.97E-02	7.42E-04	1.16E-05	1.22E-07	1.33E-09	1.94E-11	1.94E-11	1.94E-11	
9679.20	1.20	3.63E 00	3.28E-01	2.30E-02	8.69E-04	1.36E-05	1.44E-07	1.55E-09	2.24E-11	2.24E-11	
3.63E 00		3.28E-01	2.30E-02	8.69E-04	1.36E-05	1.44E-07	1.55E-09	2.24E-11	2.24E-11	2.24E-11	
10485.80	1.30	4.18E 00	3.77E-01	2.65E-02	1.00E-03	1.57E-05	1.63E-07	1.77E-09	2.52E-11	2.52E-11	
4.18E 00		3.77E-01	2.65E-02	1.00E-03	1.57E-05	1.63E-07	1.77E-09	2.52E-11	2.52E-11	2.52E-11	
11292.40	1.40	4.67E 00	4.22E-01	2.97E-02	1.12E-03	1.75E-05	1.80E-07	1.95E-09	2.83E-11	2.83E-11	
4.67E 00		4.22E-01	2.97E-02	1.12E-03	1.75E-05	1.80E-07	1.95E-09	2.83E-11	2.83E-11	2.83E-11	
12099.00	1.50	5.13E 00	4.63E-01	3.26E-02	1.23E-03	1.92E-05	1.98E-07	2.15E-09	3.12E-11	3.12E-11	
5.13E 00		4.63E-01	3.26E-02	1.23E-03	1.92E-05	1.98E-07	2.15E-09	3.12E-11	3.12E-11	3.12E-11	
12905.60	1.60	5.59E 00	5.01E-01	3.53E-02	1.33E-03	2.08E-05	2.15E-07	2.34E-09	3.42E-11	3.42E-11	
5.59E 00		5.01E-01	3.53E-02	1.33E-03	2.08E-05	2.15E-07	2.34E-09	3.42E-11	3.42E-11	3.42E-11	
13712.20	1.70	5.96E 00	5.37E-01	3.78E-02	1.43E-03	2.23E-05	2.32E-07	2.52E-09	3.72E-11	3.72E-11	
5.96E 00		5.37E-01	3.78E-02	1.43E-03	2.23E-05	2.32E-07	2.52E-09	3.72E-11	3.72E-11	3.72E-11	
14518.80	1.80	6.34E 00	5.71E-01	4.02E-02	1.51E-03	2.37E-05	2.47E-07	2.69E-09	4.00E-11	4.00E-11	
6.34E 00		5.71E-01	4.02E-02	1.51E-03	2.37E-05	2.47E-07	2.69E-09	4.00E-11	4.00E-11	4.00E-11	
15325.40	1.90	6.69E 00	6.02E-01	4.23E-02	1.60E-03	2.50E-05	2.61E-07	2.85E-09	4.27E-11	4.27E-11	
6.69E 00		6.02E-01	4.23E-02	1.60E-03	2.50E-05	2.61E-07	2.85E-09	4.27E-11	4.27E-11	4.27E-11	
16132.00	2.00	7.03E 00	6.31E-01	4.44E-02	1.67E-03	2.62E-05	2.74E-07	3.02E-09	4.52E-11	4.52E-11	
7.03E 00		6.31E-01	4.44E-02	1.67E-03	2.62E-05	2.74E-07	3.02E-09	4.52E-11	4.52E-11	4.52E-11	
16938.60	2.10	7.34E 00	6.59E-01	4.63E-02	1.75E-03	2.74E-05	2.87E-07	3.17E-09	4.76E-11	4.76E-11	
7.34E 00		6.59E-01	4.63E-02	1.75E-03	2.74E-05	2.87E-07	3.17E-09	4.76E-11	4.76E-11	4.76E-11	
17745.20	2.20	7.64E 00	6.85E-01	4.81E-02	1.81E-03	2.84E-05	2.99E-07	3.32E-09	5.13E-11	5.13E-11	
7.64E 00		6.85E-01	4.81E-02	1.81E-03	2.84E-05	2.99E-07	3.32E-09	5.13E-11	5.13E-11	5.13E-11	
18551.80	2.30	7.92E 00	7.09E-01	4.98E-02	1.88E-03	2.94E-05	3.09E-07	3.46E-09	5.42E-11	5.42E-11	
7.92E 00		7.09E-01	4.98E-02	1.88E-03	2.94E-05	3.09E-07	3.46E-09	5.42E-11	5.42E-11	5.42E-11	
19358.40	2.40	8.22E 00	7.35E-01	5.16E-02	1.94E-03	3.03E-05	3.19E-07	3.58E-09	5.72E-11	5.72E-11	
8.22E 00		7.35E-01	5.16E-02	1.94E-03	3.03E-05	3.19E-07	3.58E-09	5.72E-11	5.72E-11	5.72E-11	
20165.00	2.50	8.49E 00	7.59E-01	5.33E-02	2.01E-03	3.13E-05	3.28E-07	3.70E-09	6.00E-11	6.00E-11	
8.49E 00		7.59E-01	5.33E-02	2.01E-03	3.13E-05	3.28E-07	3.70E-09	6.00E-11	6.00E-11	6.00E-11	
20971.60	2.60	8.77E 00	7.83E-01	5.49E-02	2.07E-03	3.23E-05	3.38E-07	3.82E-09	6.24E-11	6.24E-11	
8.77E 00		7.83E-01	5.49E-02	2.07E-03	3.23E-05	3.38E-07	3.82E-09	6.24E-11	6.24E-11	6.24E-11	
21778.20	2.70	9.04E 00	8.06E-01	5.65E-02	2.13E-03	3.32E-05	3.48E-07	3.94E-09	6.52E-11	6.52E-11	
9.04E 00		8.06E-01	5.65E-02	2.13E-03	3.32E-05	3.48E-07	3.94E-09	6.52E-11	6.52E-11	6.52E-11	

Wave Number (cm ⁻¹)	Photon Energy (eV)	1.0E 01	1.0E 00	1.0E-01	Density x Normal	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
22584.80	2.80	9.29E 00	8.20E-01	5.80E-02	2.19E-03	3.41E-05	3.58E-07	4.06E-09	4.79E-11	6.79E-11
9.27E 90		8.27E-01	5.80E-02	2.19E-03	3.41E-05	3.58E-07	4.06E-09	4.79E-11	6.79E-11	6.79E-11
9.54E 00	2.90	8.48E-01	5.95E-02	2.24E-03	3.50E-05	3.67E-07	4.17E-09	4.79E-11	7.03E-11	7.03E-11
9.52E 00		8.44E-01	5.95E-02	2.24E-03	3.50E-05	3.67E-07	4.17E-09	4.79E-11	7.03E-11	7.03E-11
9.70E 00	3.00	8.68E-01	6.09E-02	2.29E-03	3.58E-05	3.76E-07	4.28E-09	4.79E-11	7.27E-11	7.27E-11
9.75E 00		8.68E-01	6.09E-02	2.29E-03	3.58E-05	3.76E-07	4.28E-09	4.79E-11	7.27E-11	7.27E-11
1.00E 01	3.10	8.84E-01	6.22E-02	2.34E-03	3.66E-05	3.85E-07	4.39E-09	4.79E-11	7.49E-11	7.49E-11
9.98E 00		8.87E-01	6.22E-02	2.34E-03	3.66E-05	3.85E-07	4.39E-09	4.79E-11	7.49E-11	7.49E-11
1.02E 01	3.20	9.06E-01	6.34E-02	2.39E-03	3.73E-05	3.93E-07	4.48E-09	4.79E-11	7.69E-11	7.69E-11
1.02E 01		9.05E-01	6.34E-02	2.39E-03	3.73E-05	3.93E-07	4.48E-09	4.79E-11	7.69E-11	7.69E-11
1.04E 01	3.30	9.23E-01	6.46E-02	2.43E-03	3.80E-05	4.01E-07	4.58E-09	4.79E-11	7.89E-11	7.89E-11
1.04E 01		9.22E-01	6.46E-02	2.43E-03	3.80E-05	4.01E-07	4.58E-09	4.79E-11	7.89E-11	7.89E-11
1.06E 01	3.40	9.39E-01	6.57E-02	2.47E-03	3.87E-05	4.08E-07	4.66E-09	4.79E-11	8.09E-11	8.09E-11
1.06E 01		9.38E-01	6.57E-02	2.47E-03	3.87E-05	4.08E-07	4.66E-09	4.79E-11	8.09E-11	8.09E-11
1.08E 01	3.50	9.54E-01	6.67E-02	2.51E-03	3.93E-05	4.15E-07	4.77E-09	4.79E-11	8.29E-11	8.29E-11
1.08E 01		9.53E-01	6.67E-02	2.51E-03	3.93E-05	4.15E-07	4.77E-09	4.79E-11	8.29E-11	8.29E-11
1.10E 01	3.60	9.69E-01	6.77E-02	2.55E-03	3.99E-05	4.22E-07	4.88E-09	4.79E-11	8.49E-11	8.49E-11
1.10E 01		9.67E-01	6.77E-02	2.55E-03	3.99E-05	4.22E-07	4.88E-09	4.79E-11	8.49E-11	8.49E-11
1.12E 01	3.70	9.83E-01	6.86E-02	2.59E-03	4.04E-05	4.28E-07	4.98E-09	4.79E-11	8.69E-11	8.69E-11
1.12E 01		9.82E-01	6.86E-02	2.59E-03	4.04E-05	4.28E-07	4.98E-09	4.79E-11	8.69E-11	8.69E-11
1.14E 01	3.80	9.98E-01	6.96E-02	2.62E-03	4.09E-05	4.33E-07	5.08E-09	4.79E-11	8.89E-11	8.89E-11
1.14E 01		9.97E-01	6.96E-02	2.62E-03	4.09E-05	4.33E-07	5.08E-09	4.79E-11	8.89E-11	8.89E-11
1.17E 01	3.90	1.01E 00	7.06E-02	2.66E-03	4.15E-05	4.39E-07	5.18E-09	4.79E-11	9.09E-11	9.09E-11
1.16E 01		1.01E 00	7.06E-02	2.66E-03	4.15E-05	4.39E-07	5.18E-09	4.79E-11	9.09E-11	9.09E-11
1.19E 01	4.00	1.03E 00	7.16E-02	2.69E-03	4.21E-05	4.45E-07	5.27E-09	4.79E-11	9.29E-11	9.29E-11
1.18E 01		1.03E 00	7.16E-02	2.69E-03	4.21E-05	4.45E-07	5.27E-09	4.79E-11	9.29E-11	9.29E-11
1.21E 01	4.10	1.05E 00	7.27E-02	2.74E-03	4.27E-05	4.52E-07	5.37E-09	4.79E-11	9.49E-11	9.49E-11
1.20E 01		1.05E 00	7.27E-02	2.74E-03	4.27E-05	4.52E-07	5.37E-09			

40330.00	5.00	1.39E 01	1.15E 00	6.12E-02	3.06E-03	4.78E-05	5.08E-07	6.16E-09	1.27E-10
		1.38E 01	1.17E 00	6.12E-02	3.06E-03	4.78E-05	5.08E-07	6.16E-09	1.27E-10
41136.60	5.10	1.41E 01	1.19E 00	6.20E-02	3.08E-03	4.83E-05	5.14E-07	6.23E-09	1.29E-10
		1.40E 01	1.19E 00	6.20E-02	3.08E-03	4.83E-05	5.14E-07	6.23E-09	1.29E-10
41943.20	5.20	1.42E 01	1.20E 00	6.28E-02	3.11E-03	4.88E-05	5.19E-07	6.30E-09	1.31E-10
		1.42E 01	1.20E 00	6.28E-02	3.11E-03	4.88E-05	5.19E-07	6.30E-09	1.31E-10
42749.80	5.30	1.44E 01	1.21E 00	6.35E-02	3.14E-03	4.92E-05	5.23E-07	6.37E-09	1.33E-10
		1.43E 01	1.21E 00	6.35E-02	3.14E-03	4.92E-05	5.23E-07	6.37E-09	1.33E-10
43556.40	5.40	1.46E 01	1.22E 00	6.42E-02	3.17E-03	4.96E-05	5.28E-07	6.43E-09	1.35E-10
		1.45E 01	1.22E 00	6.42E-02	3.17E-03	4.96E-05	5.28E-07	6.43E-09	1.35E-10
44363.00	5.50	1.47E 01	1.23E 00	6.49E-02	3.19E-03	5.00E-05	5.33E-07	6.49E-09	1.37E-10
		1.46E 01	1.23E 00	6.49E-02	3.19E-03	5.00E-05	5.33E-07	6.49E-09	1.37E-10
45169.60	5.60	1.49E 01	1.24E 00	6.55E-02	3.22E-03	5.04E-05	5.37E-07	6.55E-09	1.39E-10
		1.48E 01	1.24E 00	6.55E-02	3.22E-03	5.04E-05	5.37E-07	6.55E-09	1.39E-10
45976.20	5.70	1.50E 01	1.25E 00	6.62E-02	3.24E-03	5.08E-05	5.41E-07	6.61E-09	1.40E-10
		1.49E 01	1.25E 00	6.62E-02	3.24E-03	5.08E-05	5.41E-07	6.61E-09	1.40E-10
46782.80	5.80	1.52E 01	1.26E 00	6.68E-02	3.27E-03	5.12E-05	5.46E-07	6.66E-09	1.41E-10
		1.51E 01	1.26E 00	6.68E-02	3.27E-03	5.12E-05	5.46E-07	6.66E-09	1.41E-10
47589.40	5.90	1.53E 01	1.27E 00	6.74E-02	3.29E-03	5.16E-05	5.50E-07	6.72E-09	1.42E-10
		1.52E 01	1.27E 00	6.74E-02	3.29E-03	5.16E-05	5.50E-07	6.72E-09	1.42E-10
48396.00	6.00	1.54E 01	1.28E 00	6.80E-02	3.31E-03	5.19E-05	5.55E-07	6.77E-09	1.44E-10
		1.53E 01	1.28E 00	6.80E-02	3.31E-03	5.19E-05	5.55E-07	6.77E-09	1.44E-10
49202.60	6.10	1.56E 01	1.29E 00	6.86E-02	3.33E-03	5.23E-05	5.59E-07	6.85E-09	1.45E-10
		1.55E 01	1.29E 00	6.86E-02	3.33E-03	5.23E-05	5.59E-07	6.85E-09	1.45E-10
50009.20	6.20	1.57E 01	1.30E 00	6.91E-02	3.35E-03	5.26E-05	5.63E-07	6.94E-09	1.46E-10
		1.56E 01	1.30E 00	6.91E-02	3.35E-03	5.26E-05	5.63E-07	6.94E-09	1.46E-10
50815.80	6.30	1.59E 01	1.31E 00	6.97E-02	3.37E-03	5.29E-05	5.67E-07	7.02E-09	1.47E-10
		1.58E 01	1.31E 00	6.97E-02	3.37E-03	5.29E-05	5.67E-07	7.02E-09	1.47E-10
51622.40	6.40	1.60E 01	1.32E 00	7.02E-02	3.39E-03	5.33E-05	5.71E-07	7.10E-09	1.50E-10
		1.59E 01	1.32E 00	7.02E-02	3.39E-03	5.33E-05	5.71E-07	7.10E-09	1.50E-10
52429.00	6.50	1.61E 01	1.32E 00	7.07E-02	3.41E-03	5.36E-05	5.74E-07	7.17E-09	1.50E-10
		1.60E 01	1.32E 00	7.07E-02	3.41E-03	5.36E-05	5.74E-07	7.17E-09	1.50E-10
53235.60	6.60	1.62E 01	1.33E 00	7.12E-02	3.43E-03	5.39E-05	5.78E-07	7.24E-09	1.52E-10
		1.61E 01	1.33E 00	7.12E-02	3.43E-03	5.39E-05	5.78E-07	7.24E-09	1.52E-10
54042.20	6.70	1.63E 01	1.34E 00	7.17E-02	3.45E-03	5.42E-05	5.81E-07	7.31E-09	1.55E-10
		1.62E 01	1.34E 00	7.17E-02	3.45E-03	5.42E-05	5.81E-07	7.31E-09	1.55E-10
54848.80	6.80	1.65E 01	1.35E 00	7.21E-02	3.47E-03	5.44E-05	5.85E-07	7.37E-09	1.57E-10
		1.64E 01	1.35E 00	7.21E-02	3.47E-03	5.44E-05	5.85E-07	7.37E-09	1.57E-10
55655.40	6.90	1.66E 01	1.35E 00	7.26E-02	3.48E-03	5.47E-05	5.88E-07	7.43E-09	1.70E-10
		1.65E 01	1.35E 00	7.26E-02	3.48E-03	5.47E-05	5.88E-07	7.43E-09	1.70E-10
56462.00	7.00	1.67E 01	1.36E 00	7.30E-02	3.50E-03	5.50E-05	5.91E-07	7.49E-09	1.72E-10
		1.66E 01	1.36E 00	7.30E-02	3.50E-03	5.50E-05	5.91E-07	7.49E-09	1.72E-10
57268.60	7.10	1.68E 01	1.37E 00	7.35E-02	3.52E-03	5.52E-05	5.94E-07	7.55E-09	1.75E-10
		1.67E 01	1.37E 00	7.35E-02	3.52E-03	5.52E-05	5.94E-07	7.55E-09	1.75E-10
58075.20	7.20	1.69E 01	1.37E 00	7.39E-02	3.53E-03	5.55E-05	5.97E-07	7.60E-09	1.77E-10
		1.68E 01	1.37E 00	7.39E-02	3.53E-03	5.55E-05	5.97E-07	7.60E-09	1.77E-10
58881.80	7.30	1.70E 01	1.38E 00	7.43E-02	3.55E-03	5.57E-05	6.00E-07	7.65E-09	1.79E-10
		1.69E 01	1.38E 00	7.43E-02	3.55E-03	5.57E-05	6.00E-07	7.65E-09	1.79E-10
59688.40	7.40	1.71E 01	1.39E 00	7.47E-02	3.56E-03	5.60E-05	6.03E-07	7.70E-09	1.80E-10
		1.70E 01	1.39E 00	7.47E-02	3.56E-03	5.60E-05	6.03E-07	7.70E-09	1.80E-10

75240.20	9.70	1.89E 01	1.50E 00	1.02E-01	3.84E-03	6.05E-05	6.53E-07	8.60E-09	2.19E-10
		1.87E 01	1.50E 00	1.02E-01	3.84E-03	6.05E-05	6.53E-07	8.60E-09	2.19E-10
79046.80	9.80	1.89E 01	1.51E 00	1.02E-01	3.85E-03	6.07E-05	6.55E-07	8.64E-09	2.16E-10
		1.87E 01	1.51E 00	1.02E-01	3.85E-03	6.07E-05	6.55E-07	8.64E-09	2.16E-10
79053.40	9.90	1.90E 01	1.52E 00	1.03E-01	3.87E-03	6.09E-05	6.58E-07	8.68E-09	2.17E-10
		1.88E 01	1.51E 00	1.03E-01	3.87E-03	6.09E-05	6.58E-07	8.68E-09	2.17E-10
80460.00	10.00	1.91E 01	1.52E 00	1.03E-01	3.88E-03	6.11E-05	6.60E-07	8.71E-09	2.18E-10
		1.89E 01	1.52E 00	1.03E-01	3.88E-03	6.11E-05	6.60E-07	8.71E-09	2.18E-10
81466.60	10.10	1.91E 01	1.53E 00	1.03E-01	3.89E-03	6.13E-05	6.62E-07	8.74E-09	2.19E-10
		1.89E 01	1.52E 00	1.03E-01	3.89E-03	6.13E-05	6.62E-07	8.74E-09	2.19E-10
82273.20	10.20	1.92E 01	1.53E 00	1.03E-01	3.90E-03	6.14E-05	6.64E-07	8.78E-09	2.20E-10
		1.90E 01	1.53E 00	1.04E-01	3.90E-03	6.14E-05	6.64E-07	8.78E-09	2.20E-10
83079.80	10.30	1.93E 01	1.53E 00	1.04E-01	3.91E-03	6.16E-05	6.66E-07	8.81E-09	2.21E-10
		1.91E 01	1.53E 00	1.04E-01	3.91E-03	6.16E-05	6.66E-07	8.81E-09	2.21E-10
83886.40	10.40	1.93E 01	1.54E 00	1.04E-01	3.92E-03	6.18E-05	6.68E-07	8.83E-09	2.22E-10
		1.91E 01	1.54E 00	1.04E-01	3.92E-03	6.18E-05	6.68E-07	8.83E-09	2.22E-10
84693.00	10.50	1.94E 01	1.54E 00	1.05E-01	3.93E-03	6.20E-05	6.70E-07	8.86E-09	2.23E-10
		1.92E 01	1.54E 00	1.05E-01	3.93E-03	6.20E-05	6.70E-07	8.86E-09	2.23E-10
85499.60	10.60	1.94E 01	1.55E 00	1.05E-01	3.94E-03	6.21E-05	6.72E-07	8.89E-09	2.24E-10
		1.92E 01	1.54E 00	1.05E-01	3.94E-03	6.21E-05	6.72E-07	8.89E-09	2.24E-10
86306.20	10.70	2.14E 01	1.72E 00	1.12E-01	4.38E-03	6.24E-05	6.76E-07	8.94E-09	2.26E-10
		2.11E 01	1.72E 00	1.12E-01	4.38E-03	6.24E-05	6.76E-07	8.94E-09	2.26E-10
8726.00	11.00	2.37E 01	1.93E 00	1.32E-01	4.92E-03	7.07E-05	7.65E-07	9.93E-09	2.41E-10
		2.34E 01	1.93E 00	1.31E-01	4.92E-03	7.07E-05	7.65E-07	9.93E-09	2.41E-10
90742.50	11.25	2.56E 01	2.10E 00	1.44E-01	5.36E-03	7.75E-05	8.38E-07	1.07E-08	2.54E-10
		2.53E 01	2.10E 00	1.44E-01	5.36E-03	7.75E-05	8.38E-07	1.07E-08	2.54E-10
92759.00	11.50	2.73E 01	2.26E 00	1.55E-01	5.76E-03	8.37E-05	9.04E-07	1.15E-08	2.65E-10
		2.71E 01	2.26E 00	1.54E-01	5.76E-03	8.37E-05	9.04E-07	1.15E-08	2.65E-10
94775.50	11.75	2.89E 01	2.40E 00	1.64E-01	6.12E-03	8.92E-05	9.64E-07	1.21E-08	2.75E-10
		2.86E 01	2.40E 00	1.64E-01	6.12E-03	8.92E-05	9.64E-07	1.21E-08	2.75E-10
96792.00	12.00	3.39E 01	2.86E 00	1.98E-01	7.28E-03	1.07E-04	1.02E-06	1.27E-08	2.83E-10
		3.36E 01	2.86E 00	1.98E-01	7.28E-03	1.07E-04	1.02E-06	1.27E-08	2.83E-10
98808.50	12.25	3.84E 01	3.28E 00	2.25E-01	8.33E-03	1.23E-04	1.19E-06	1.45E-08	3.02E-10
		3.82E 01	3.27E 00	2.25E-01	8.33E-03	1.23E-04	1.19E-06	1.45E-08	3.02E-10
100825.00	12.50	4.23E 01	3.65E 00	2.51E-01	9.28E-03	1.38E-04	1.35E-06	1.61E-08	3.16E-10
		4.23E 01	3.65E 00	2.51E-01	9.28E-03	1.38E-04	1.35E-06	1.61E-08	3.16E-10
102841.50	12.75	4.66E 01	4.02E 00	2.72E-01	1.02E-02	1.52E-04	1.50E-06	1.75E-08	3.33E-10
		4.63E 01	4.02E 00	2.72E-01	1.02E-02	1.52E-04	1.50E-06	1.75E-08	3.33E-10
104858.00	13.00	5.02E 01	4.36E 00	3.00E-01	1.11E-02	1.65E-04	1.64E-06	1.89E-08	3.47E-10
		5.00E 01	4.35E 00	3.00E-01	1.11E-02	1.65E-04	1.64E-06	1.89E-08	3.47E-10
106874.50	13.25	5.35E 01	4.66E 00	3.21E-01	1.15E-02	1.77E-04	1.76E-06	2.02E-08	3.60E-10
		5.33E 01	4.65E 00	3.21E-01	1.15E-02	1.77E-04	1.76E-06	2.02E-08	3.60E-10
108891.00	13.50	5.74E 01	5.01E 00	3.48E-01	1.28E-02	1.93E-04	1.93E-06	2.13E-08	3.71E-10
		5.72E 01	5.01E 00	3.48E-01	1.28E-02	1.93E-04	1.93E-06	2.13E-08	3.71E-10
110907.50	13.75	6.09E 01	5.33E 00	3.69E-01	1.37E-02	2.07E-04	2.09E-06	2.29E-08	3.82E-10
		6.06E 01	5.33E 00	3.69E-01	1.37E-02	2.07E-04	2.09E-06	2.29E-08	3.82E-10
112924.00	14.00	6.50E 01	5.72E 00	3.96E-01	1.47E-02	2.23E-04	2.26E-06	2.47E-08	4.02E-10
		6.48E 01	5.71E 00	3.96E-01	1.47E-02	2.23E-04	2.26E-06	2.47E-08	4.02E-10
114940.50	14.25	6.88E 01	6.06E 00	4.21E-01	1.57E-02	2.38E-04	2.42E-06	2.63E-08	4.16E-10
		6.86E 01	6.06E 00	4.21E-01	1.57E-02	2.38E-04	2.42E-06	2.63E-08	4.16E-10

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR, 18000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density x Normal					
		1.0E 01	1.0E 00	1.0E-01	1.0E-02	1.0E-03	1.0E-04
116957.00	14.50	7.51E 01	6.64E 00	4.43E-01	1.65E-02	2.52E-04	2.56E-06
		7.49E 01	6.63E 00	4.43E-01	1.65E-02	2.52E-04	2.56E-06
118973.50	14.75	8.10E 01	7.19E 00	4.64E-01	1.73E-02	2.65E-04	2.69E-06
		8.07E 01	7.17E 00	4.64E-01	1.73E-02	2.65E-04	2.69E-06
120990.00	15.00	8.63E 01	7.66E 00	4.83E-01	1.81E-02	2.77E-04	2.82E-06
		8.60E 01	7.66E 00	4.83E-01	1.81E-02	2.77E-04	2.82E-06
123006.50	15.25	9.10E 01	8.10E 00	5.00E-01	1.87E-02	2.87E-04	2.93E-06
		9.08E 01	8.10E 00	5.00E-01	1.87E-02	2.87E-04	2.93E-06
125023.00	15.50	9.53E 01	8.50E 00	5.15E-01	1.93E-02	2.96E-04	3.03E-06
		9.51E 01	8.49E 00	5.15E-01	1.93E-02	2.96E-04	3.03E-06
127038.50	15.75	9.92E 01	8.85E 00	5.29E-01	1.98E-02	3.05E-04	3.12E-06
		9.90E 01	8.85E 00	5.29E-01	1.98E-02	3.05E-04	3.12E-06
129056.00	16.00	1.03E 02	9.16E 00	5.41E-01	2.03E-02	3.12E-04	3.20E-06
		1.02E 02	9.16E 00	5.41E-01	2.03E-02	3.12E-04	3.20E-06
131072.50	16.25	1.06E 02	9.44E 00	5.51E-01	2.07E-02	3.19E-04	3.27E-06
		1.05E 02	9.44E 00	5.51E-01	2.07E-02	3.19E-04	3.27E-06
133089.00	16.50	1.08E 02	9.69E 00	5.61E-01	2.11E-02	3.25E-04	3.34E-06
		1.08E 02	9.69E 00	5.61E-01	2.11E-02	3.25E-04	3.34E-06
135105.50	16.75	1.11E 02	9.92E 00	5.70E-01	2.15E-02	3.31E-04	3.39E-06
		1.11E 02	9.92E 00	5.70E-01	2.15E-02	3.31E-04	3.39E-06
137122.00	17.00	1.13E 02	1.01E 01	5.79E-01	2.18E-02	3.36E-04	3.45E-06
		1.13E 02	1.01E 01	5.79E-01	2.18E-02	3.36E-04	3.45E-06
139138.50	17.25	1.15E 02	1.03E 01	5.86E-01	2.21E-02	3.41E-04	3.50E-06
		1.15E 02	1.03E 01	5.86E-01	2.21E-02	3.41E-04	3.50E-06
141155.00	17.50	1.17E 02	1.05E 01	5.93E-01	2.24E-02	3.45E-04	3.55E-06
		1.17E 02	1.05E 01	5.93E-01	2.24E-02	3.45E-04	3.55E-06
143171.50	17.75	1.18E 02	1.06E 01	5.99E-01	2.26E-02	3.49E-04	3.59E-06
		1.18E 02	1.06E 01	5.99E-01	2.26E-02	3.49E-04	3.59E-06
145188.00	18.00	1.20E 02	1.07E 01	6.04E-01	2.28E-02	3.52E-04	3.63E-06
		1.20E 02	1.07E 01	6.04E-01	2.28E-02	3.52E-04	3.63E-06
147204.50	18.25	1.21E 02	1.09E 01	6.09E-01	2.30E-02	3.55E-04	3.66E-06
		1.21E 02	1.09E 01	6.09E-01	2.30E-02	3.55E-04	3.66E-06
149221.00	18.50	1.22E 02	1.10E 01	6.13E-01	2.32E-02	3.58E-04	3.69E-06
		1.22E 02	1.10E 01	6.13E-01	2.32E-02	3.58E-04	3.69E-06
151237.50	18.75	1.23E 02	1.11E 01	6.17E-01	2.33E-02	3.61E-04	3.72E-06
		1.23E 02	1.11E 01	6.17E-01	2.33E-02	3.61E-04	3.72E-06
153254.00	19.00	1.24E 02	1.11E 01	6.20E-01	2.34E-02	3.63E-04	3.74E-06
		1.24E 02	1.11E 01	6.20E-01	2.34E-02	3.63E-04	3.74E-06
155270.50	19.25	1.25E 02	1.12E 01	6.23E-01	2.35E-02	3.65E-04	3.76E-06
		1.25E 02	1.12E 01	6.23E-01	2.35E-02	3.65E-04	3.76E-06
157287.00	19.50	1.25E 02	1.13E 01	6.26E-01	2.37E-02	3.67E-04	3.78E-06
		1.25E 02	1.13E 01	6.26E-01	2.37E-02	3.67E-04	3.78E-06
159303.50	19.75	1.26E 02	1.13E 01	6.28E-01	2.38E-02	3.68E-04	3.80E-06
		1.26E 02	1.13E 01	6.28E-01	2.38E-02	3.68E-04	3.80E-06

161320.00	20.00	1.26F 02	1.14E 01	6.30E-01	2.39E-02	3.70E-04	3.81E-06	4.05E-08	5.65E-10
163338.50	20.25	1.26E 02	1.14E 01	6.30E-01	2.39E-02	3.70E-04	3.81E-06	4.05E-08	5.65E-10
163353.00	20.50	1.27E 02	1.14E 01	6.32E-01	2.39E-02	3.71E-04	3.82E-06	4.06E-08	5.67E-10
167369.50	20.75	1.27E 02	1.14F 01	6.34E-01	2.40E-02	3.72E-04	3.84E-06	4.08E-08	5.68E-10
169386.00	21.00	1.28E 02	1.15E 01	6.35E-01	2.40E-02	3.73E-04	3.85E-06	4.09E-08	5.69E-10
171402.50	21.25	1.28E 02	1.15E 01	6.36E-01	2.41E-02	3.74E-04	3.86E-06	4.10E-08	5.70E-10
173419.00	21.50	1.28E 02	1.15E 01	6.38E-01	2.41E-02	3.74E-04	3.86E-06	4.10E-08	5.71E-10
175435.50	21.75	1.29E 02	1.16E 01	6.39E-01	2.42E-02	3.75E-04	3.87E-06	4.11E-08	5.72E-10
177452.00	22.00	1.29E 02	1.16E 01	6.39E-01	2.42E-02	3.76E-04	3.88E-06	4.12E-08	5.72E-10
179468.50	22.25	1.29E 02	1.16E 01	6.40E-01	2.43E-02	3.76E-04	3.89E-06	4.12E-08	5.73E-10
181486.00	22.50	1.29E 02	1.16E 01	6.41E-01	2.43E-02	3.77E-04	3.89E-06	4.13E-08	5.73E-10
183501.50	22.75	1.30E 02	1.16E 01	6.42E-01	2.43E-02	3.77E-04	3.90E-06	4.14E-08	5.74E-10
185518.00	23.00	1.30E 02	1.17E 01	6.42E-01	2.43E-02	3.77E-04	3.90E-06	4.14E-08	5.74E-10
187534.50	23.25	1.30E 02	1.17E 01	6.43E-01	2.44E-02	3.78E-04	3.90E-06	4.15E-08	5.75E-10
189551.00	23.50	1.30E 02	1.17E 01	6.43E-01	2.44E-02	3.78E-04	3.90E-06	4.15E-08	5.75E-10
191567.50	23.75	1.30E 02	1.17E 01	6.44E-01	2.44E-02	3.78E-04	3.91E-06	4.15E-08	5.76E-10
193584.00	24.00	1.30E 02	1.17E 01	6.44E-01	2.44E-02	3.79E-04	3.91E-06	4.16E-08	5.76E-10
195600.50	24.25	1.30E 02	1.17E 01	6.44E-01	2.44E-02	3.79E-04	3.91E-06	4.16E-08	5.76E-10
197617.00	24.50	1.30E 02	1.17E 01	6.44E-01	2.44E-02	3.79E-04	3.91E-06	4.16E-08	5.76E-10
199633.50	24.75	1.30E 02	1.17E 01	6.44E-01	2.44E-02	3.79E-04	3.91E-06	4.16E-08	5.76E-10
201650.00	25.00	1.30E 02	1.17E 01	6.44E-01	2.44E-02	3.79E-04	3.91E-06	4.16E-08	5.76E-10
203666.50	25.25	1.30E 02	1.17E 01	6.45E-01	2.44E-02	3.79E-04	3.92E-06	4.16E-08	5.76E-10
205683.00	25.50	1.30E 02	1.17E 01	6.45E-01	2.44E-02	3.79E-04	3.92E-06	4.17E-08	5.76E-10
207699.50	25.75	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-06	4.21E-08	5.76E-10
209716.00	26.00	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-06	4.21E-08	5.76E-10
		1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-06	4.23E-08	6.23E-10

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 18000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	1.0E 01	1.0E 00	1.0E-01	1.0E-02	10.0E-03	10.0E-04	10.0E-05	10.0E-06	1.0E-07
211732.60	26.25	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.40E-04	3.93E-05	4.24E-06	4.24E-06	6.33E-10
213749.00	26.50	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	6.42E-10
215765.50	26.75	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	6.42E-10
217782.00	27.00	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	6.50E-10
219798.50	27.25	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	6.57E-10
221815.00	27.50	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	6.62E-10
223831.50	27.75	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	6.67E-10
225848.00	28.00	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	6.72E-10
227864.50	28.25	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	6.77E-10
229881.00	28.50	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	6.82E-10
231897.50	28.75	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	6.87E-10
233914.00	29.00	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	6.92E-10
235930.50	29.25	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	6.97E-10
237947.00	29.50	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	7.02E-10
239963.50	29.75	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	7.07E-10
241980.00	30.00	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	7.12E-10
243996.50	30.25	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	7.17E-10
246013.00	30.50	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	7.22E-10
248029.50	30.75	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	7.27E-10
250046.00	31.00	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	7.32E-10
252062.50	31.25	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	7.37E-10
254079.00	31.50	1.30E 02	1.17E 01	6.45E-01	2.45E-02	3.80E-04	3.93E-05	4.24E-06	4.24E-06	7.42E-10

PARTIAL PLANCK MEAN ABSORPTION COEFFICIENTS FOR HEATED AIR: 15000° K

Wave Number (cm ⁻¹)	Photon Energy (eV)	Density x Normal						
		1.0E 01	1.0E 00	1.0E-01	1.0E-02	1.0E-03	1.0E-04	1.0E-05
306493.50	38.00	1.31E 02	1.17E 01	6.46E-01	2.45E-02	3.84E-04	4.21E-06	6.55E-08
306515.00	38.25	1.31E 02	1.17E 01	6.46E-01	2.45E-02	3.84E-04	4.21E-06	6.55E-08
310531.50	38.50	1.31E 02	1.17E 01	6.46E-01	2.45E-02	3.84E-04	4.21E-06	6.55E-08
312548.00	38.75	1.31E 02	1.17E 01	6.46E-01	2.45E-02	3.84E-04	4.21E-06	6.55E-08
314564.50	39.00	1.31E 02	1.17E 01	6.46E-01	2.45E-02	3.84E-04	4.21E-06	6.55E-08
316581.00	39.25	1.31E 02	1.17E 01	6.46E-01	2.45E-02	3.84E-04	4.21E-06	6.55E-08
318597.00	39.50	1.31E 02	1.17E 01	6.46E-01	2.45E-02	3.84E-04	4.21E-06	6.55E-08
		1.30E 02	1.17E 01	6.46E-01	2.45E-02	3.84E-04	4.21E-06	6.56E-08

D. Absorption Coefficients (1 - 20 eV)

1. Photoelectric and Free-Free Absorption Coefficients of Oxygen and Nitrogen

The following figures are graphs of the photoelectric and free-free absorption coefficients defined as

$$\mu(\epsilon) = \sum_i N_i \sigma_i(\epsilon)$$

and expressed in units of cm^{-1} . N_i is the number per unit volume of atoms or ions in the i^{th} state, and $\sigma_i(\epsilon)$ is the total cross section for photoelectric or free-free absorption from that state at photon energy ϵ . The jagged curve in each figure, with its characteristic "edges" is the photoionization absorption coefficient, and the smooth, monotonically decreasing curve is the free-free coefficient. These absorption coefficients are plotted vs. photon energy ϵ . Graphs are given for six different density values (from approximately 10 normal to approximately 10^{-5} normal) at each of the temperatures 1, 2, 5, 10, 15, and 20 eV. The first 36 graphs are for oxygen, the remaining 36 are for nitrogen.

Photoelectric Absorption

These coefficients have been obtained from the computer code PIC of Armstrong, Johnston, and Kelly (1965). The theory upon which it is based is described in Part B of Armstrong and Nicholls (1966). The Burgess-Seaton (1960) generalization of the Coulomb Approximation has been employed at low photon energies (near the photoelectric edge), and a high-energy approximation due to Johnston (1964) has been used above the low-energy region, to obtain the cross sections $\sigma_i(\epsilon)$. The number densities, or occupation numbers, N_i , were obtained from the earlier work of Armstrong, Holland, and Meyerott (1958).

Free-Free Absorption

These results have been obtained from the work of Armstrong (1959), and are based upon a hydrogenic approximation.

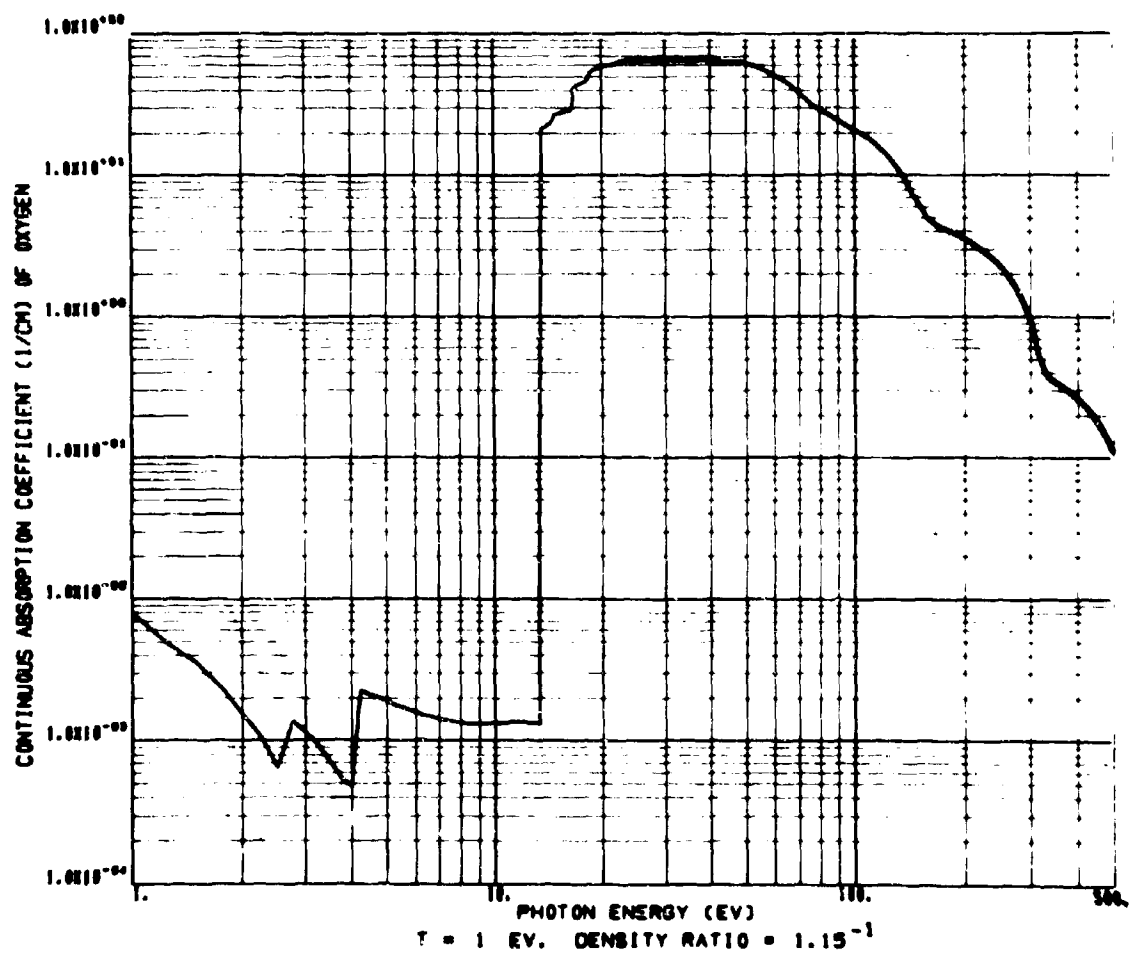
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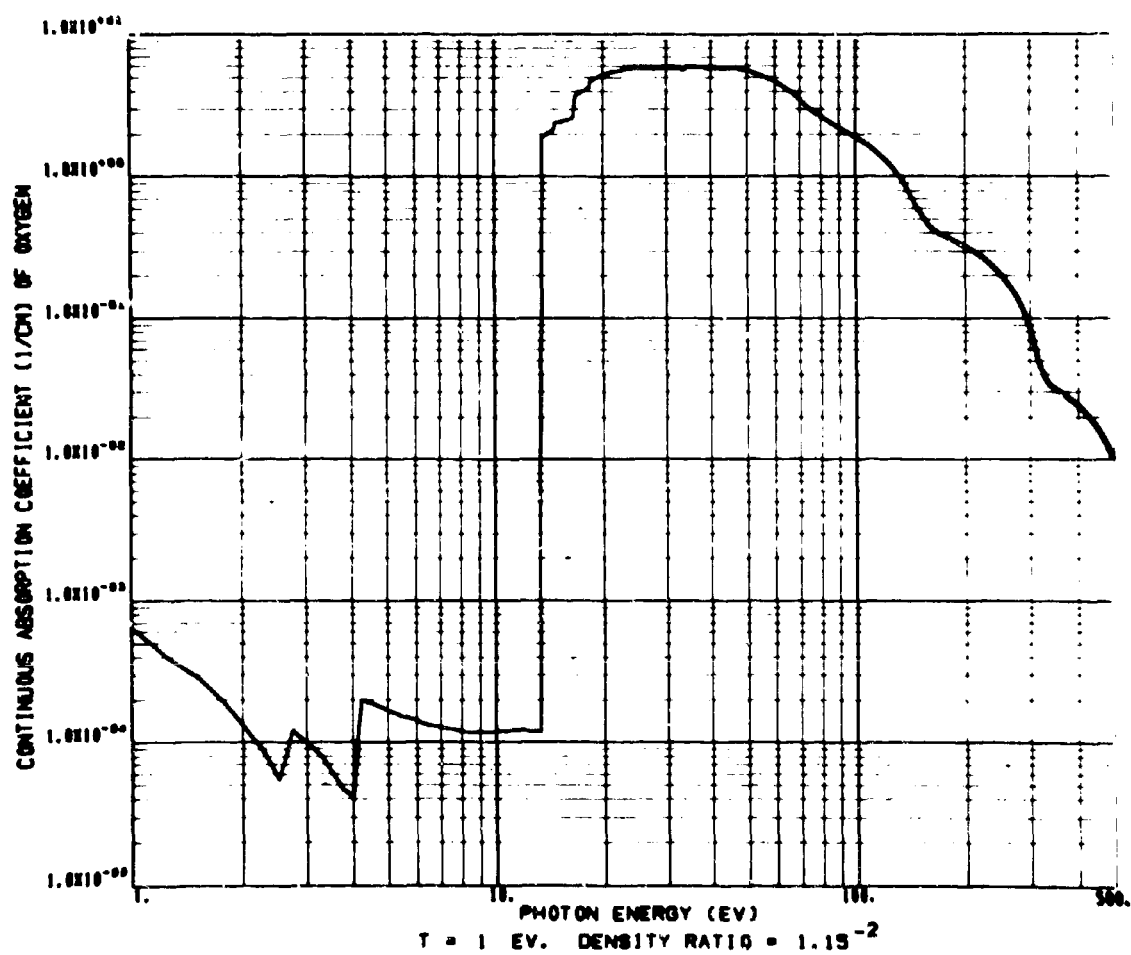
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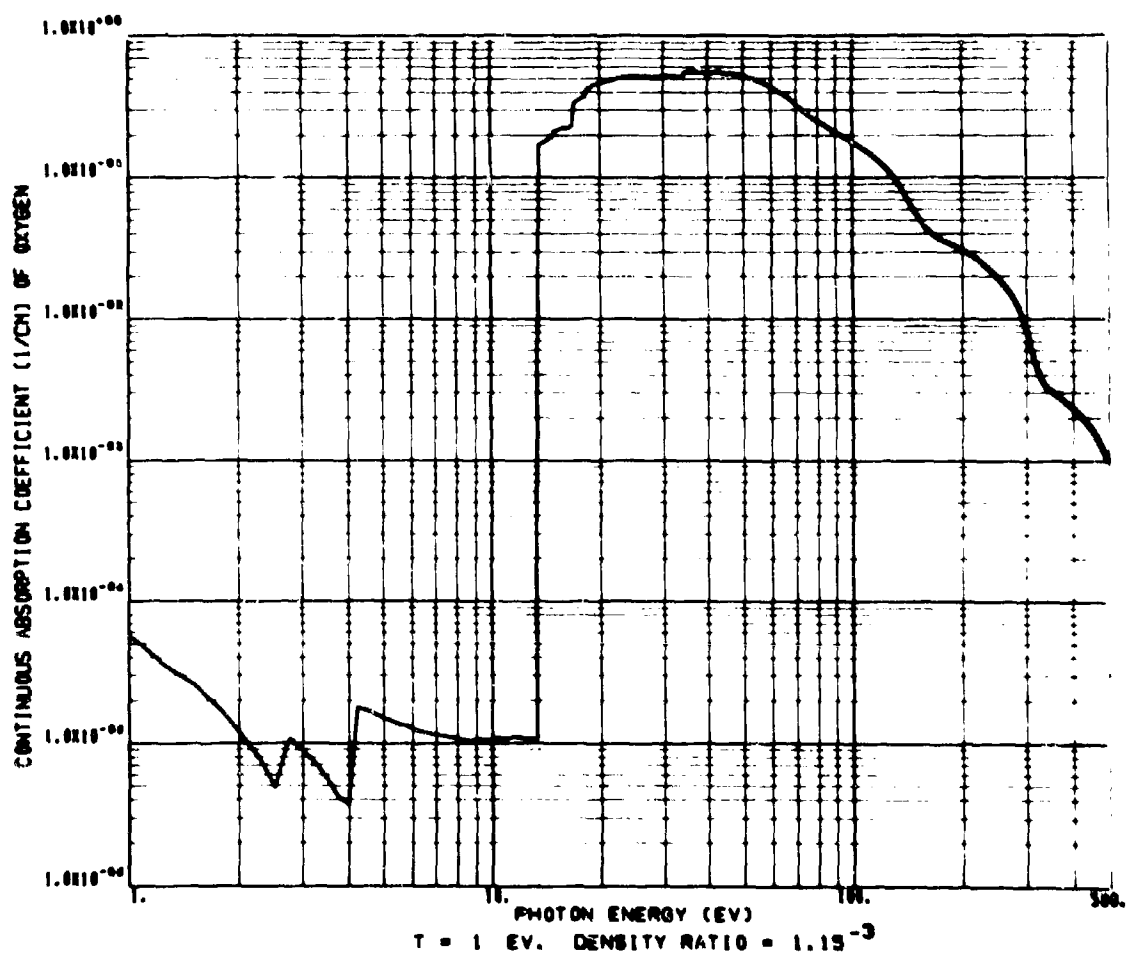
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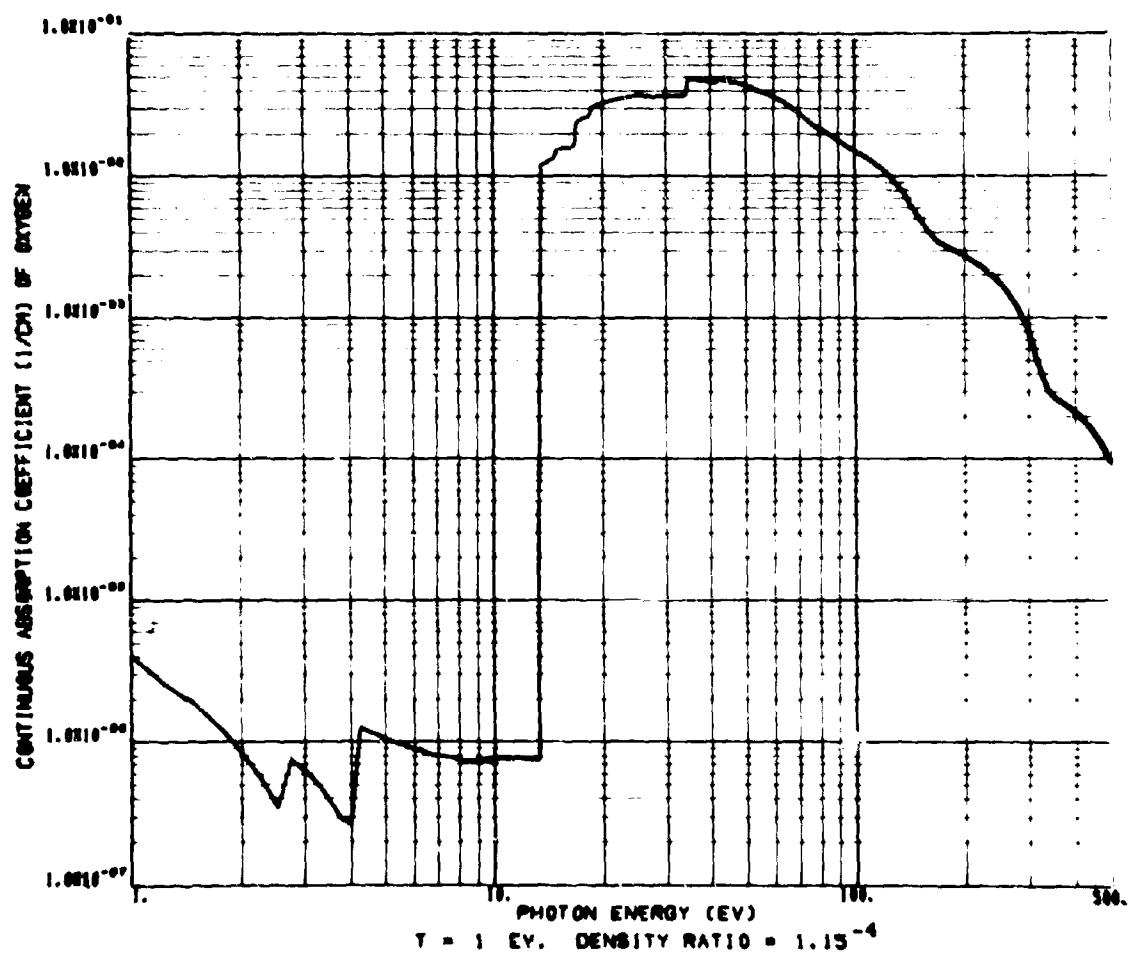
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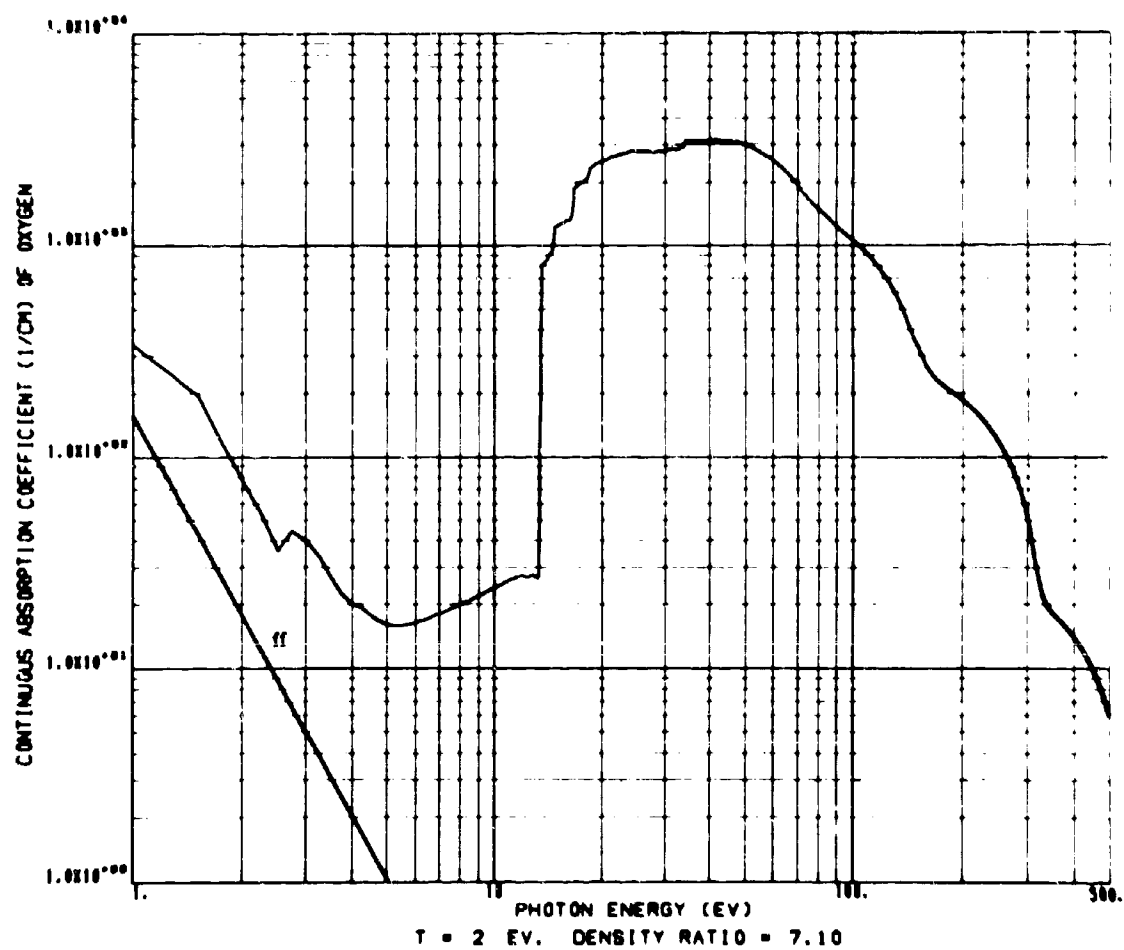
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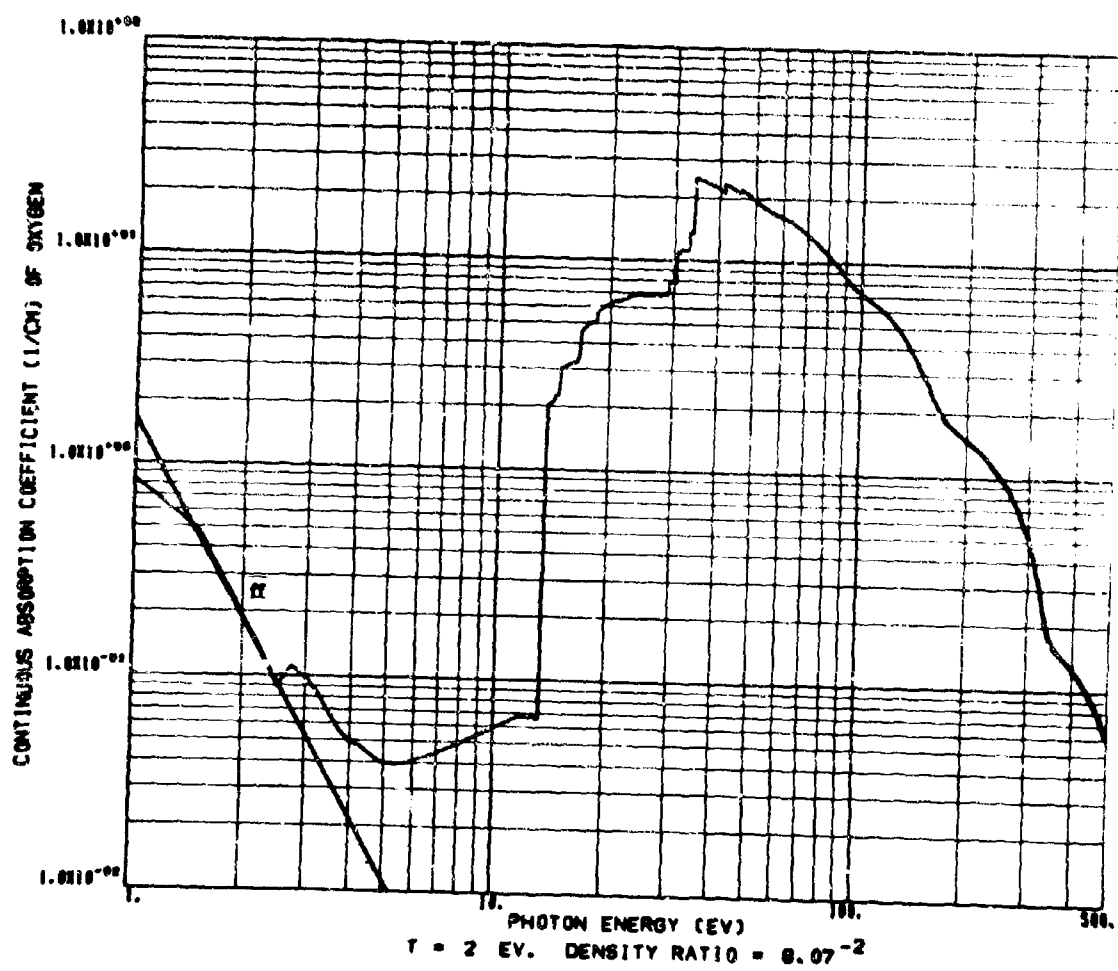


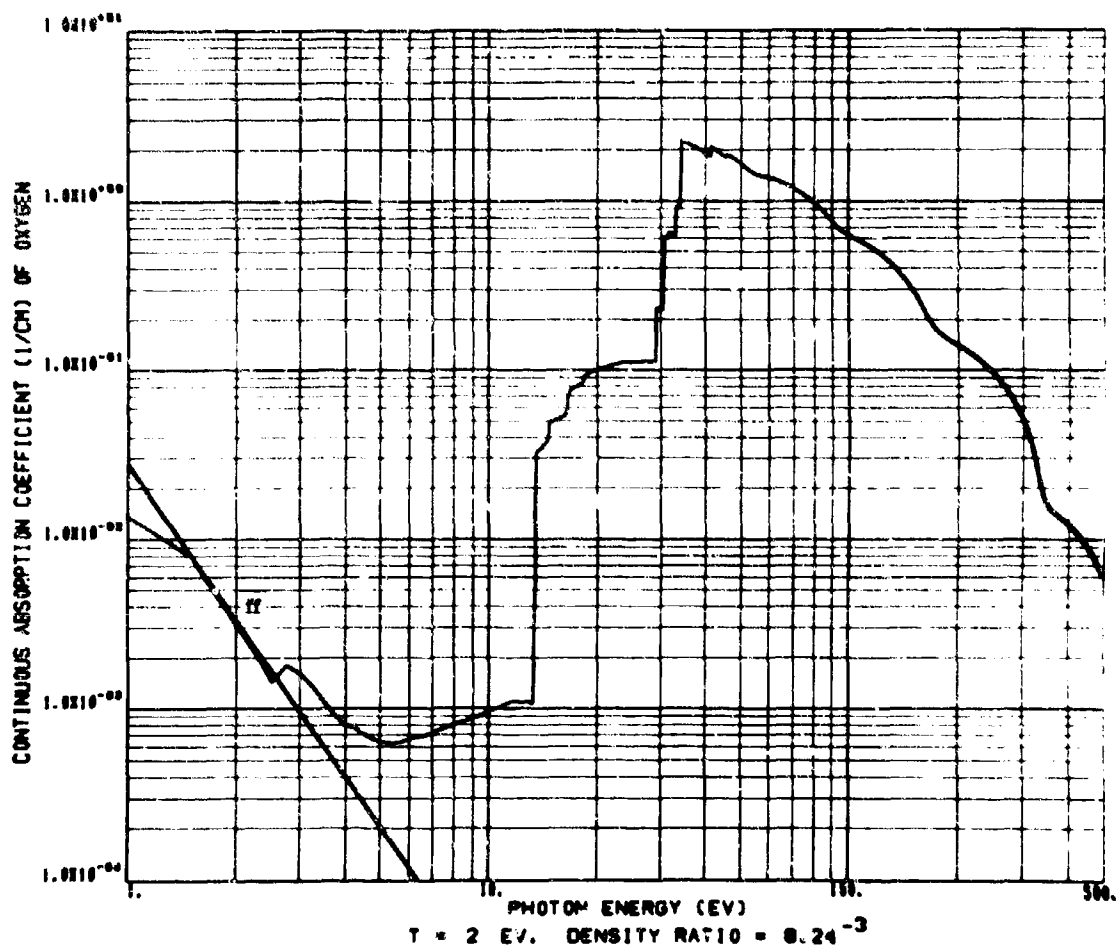


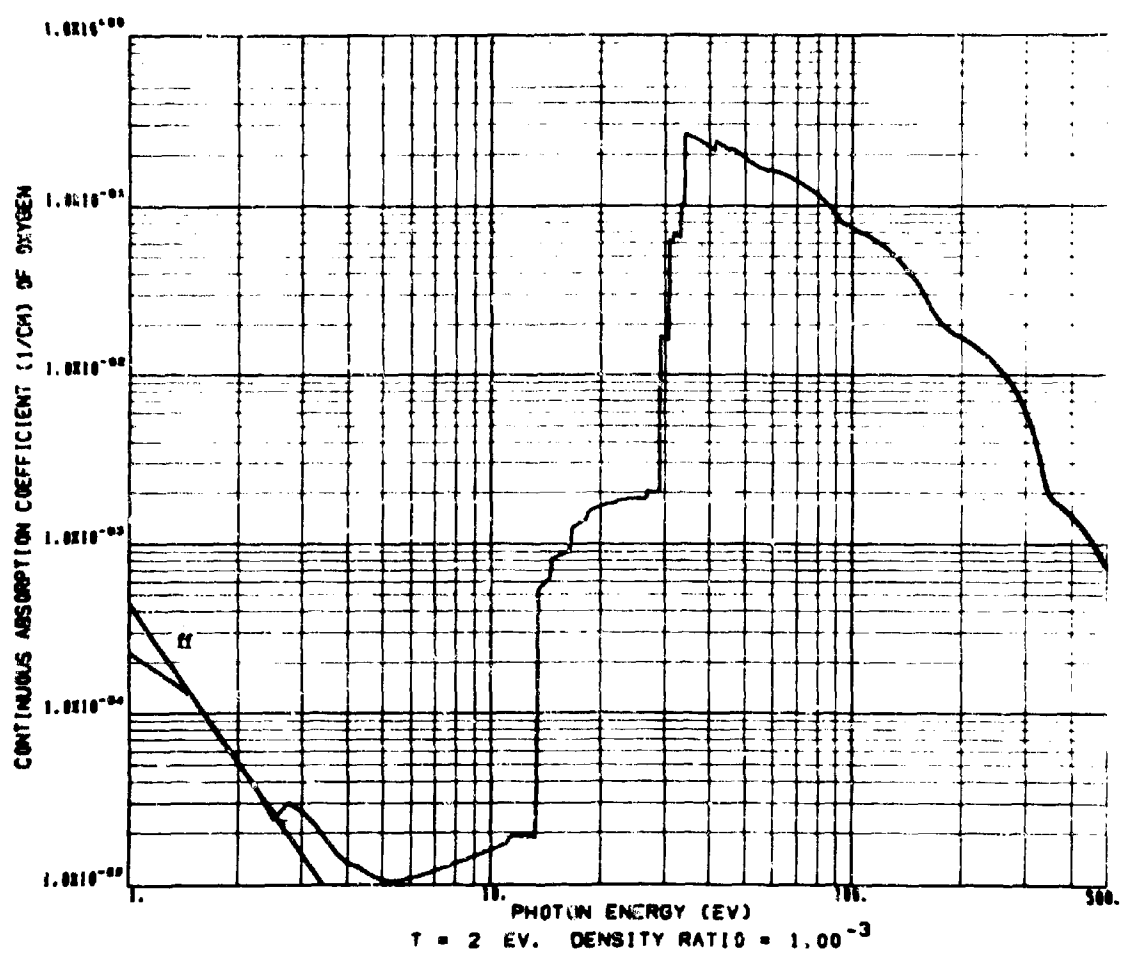


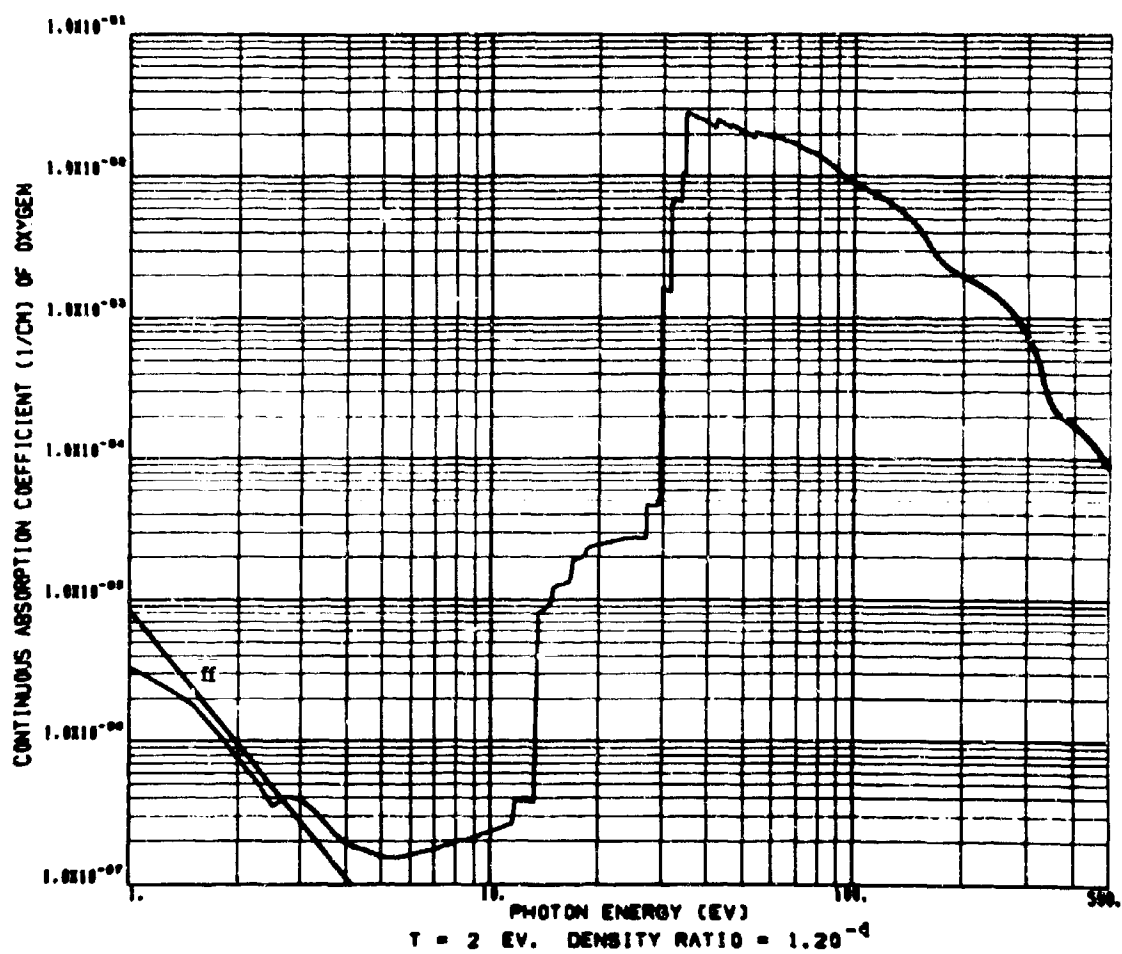


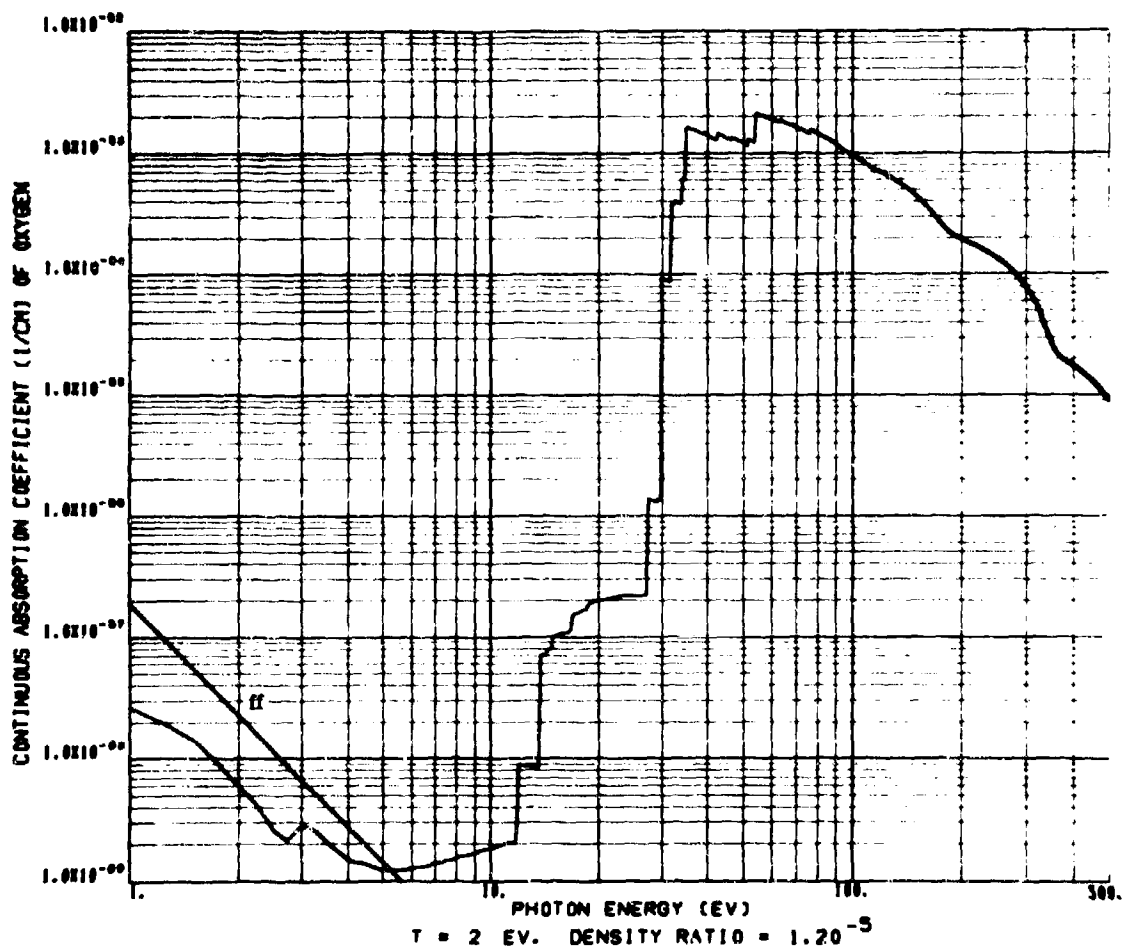


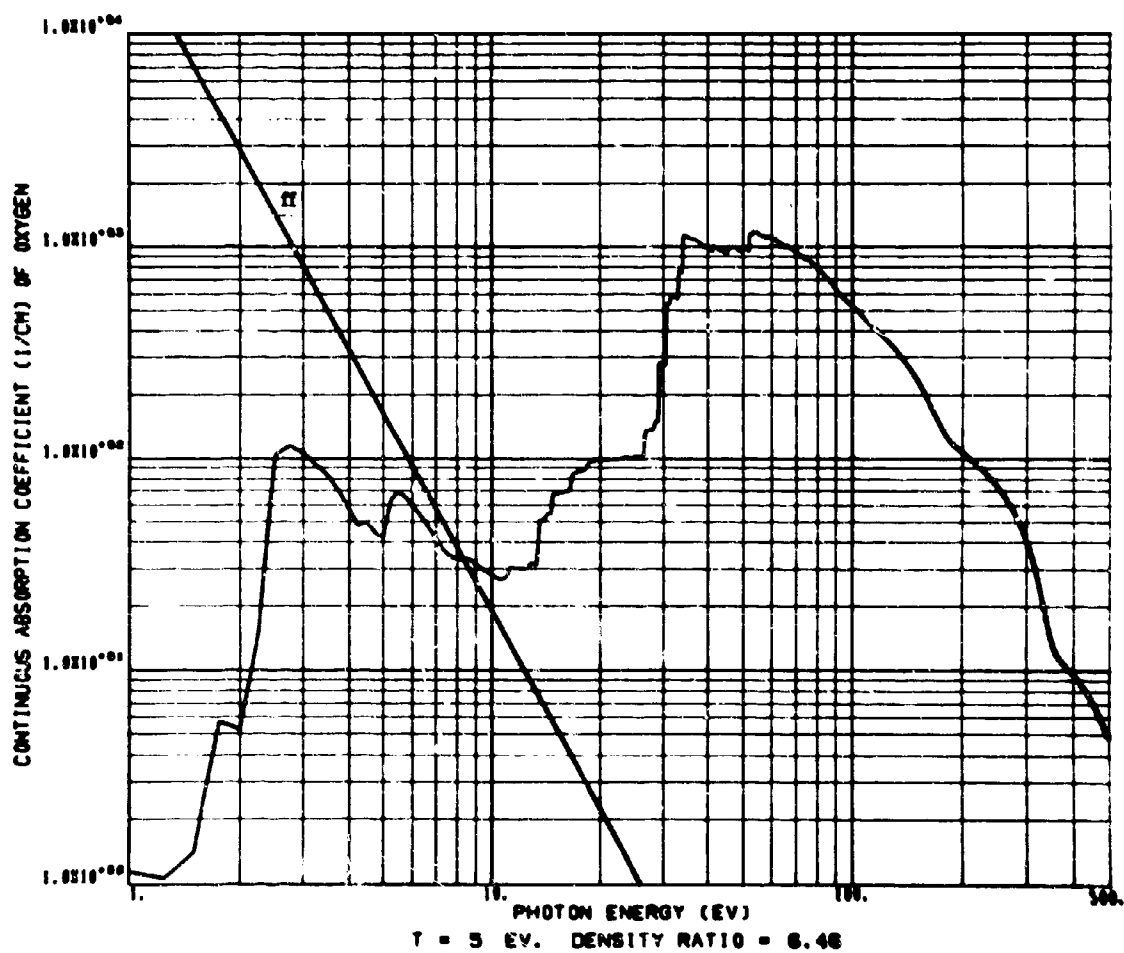


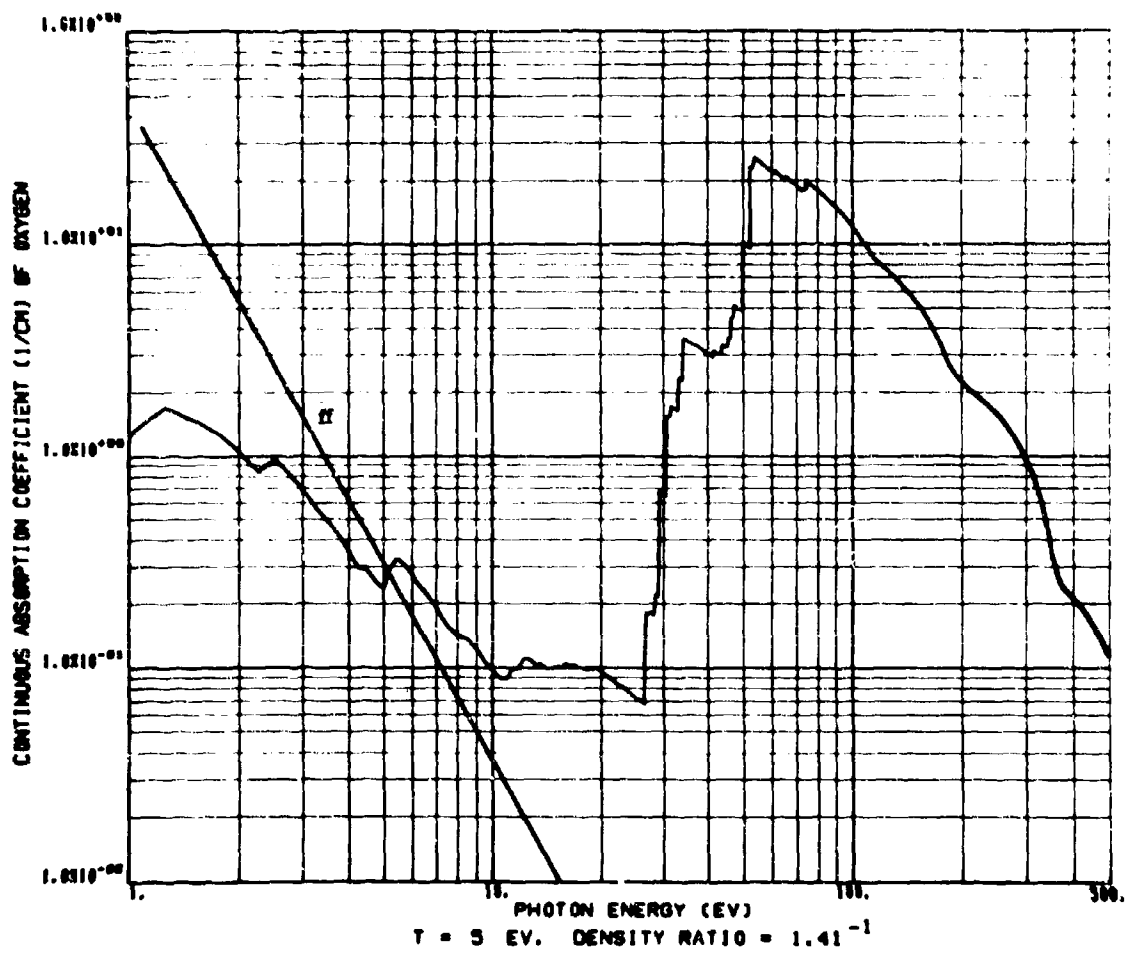


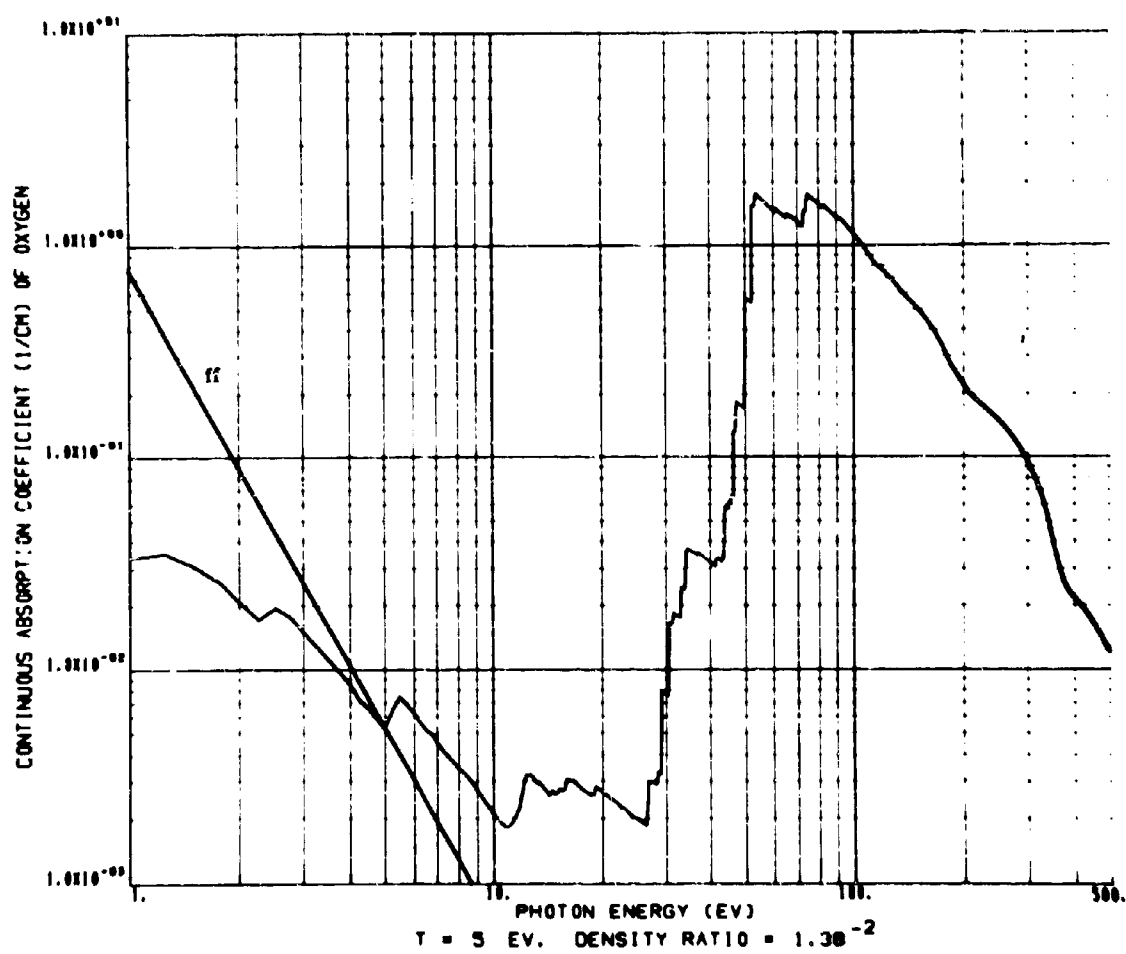


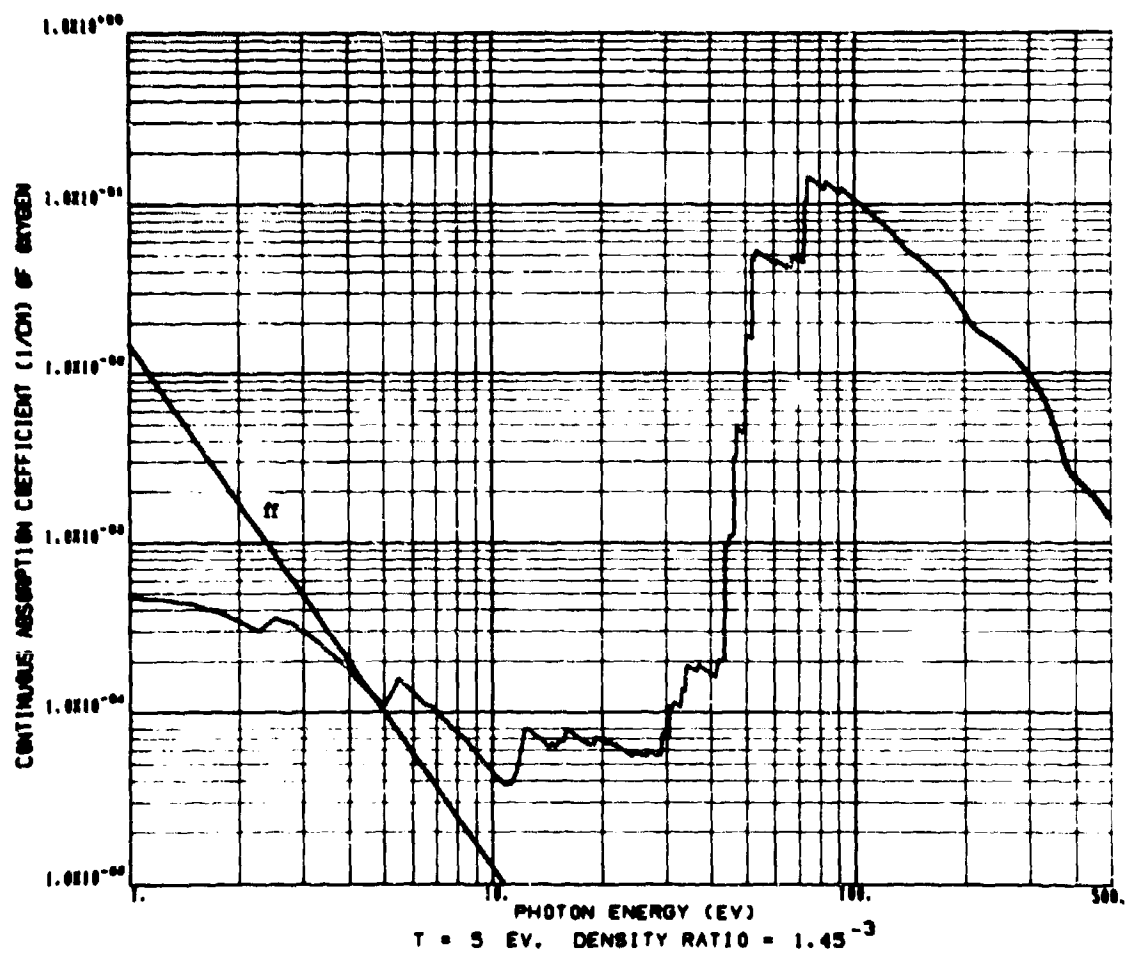


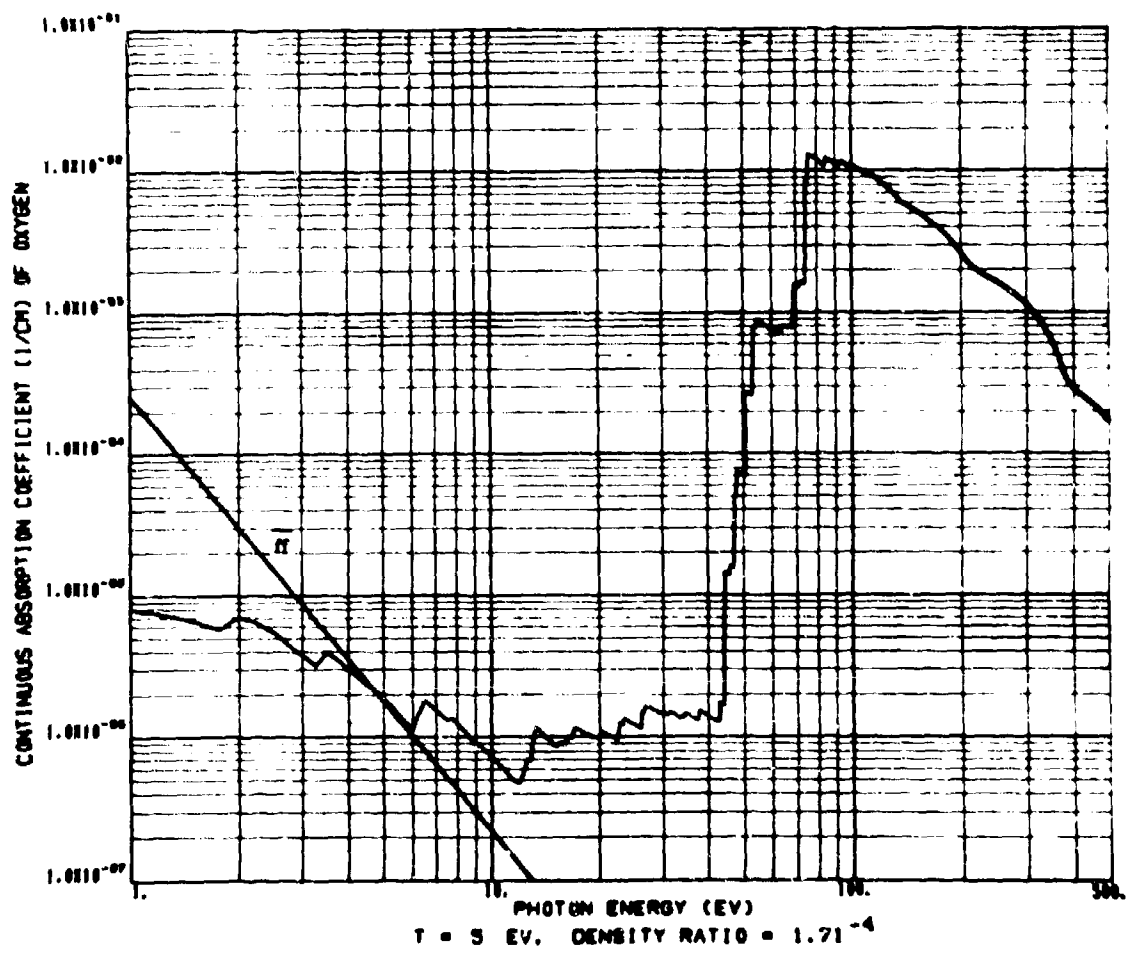


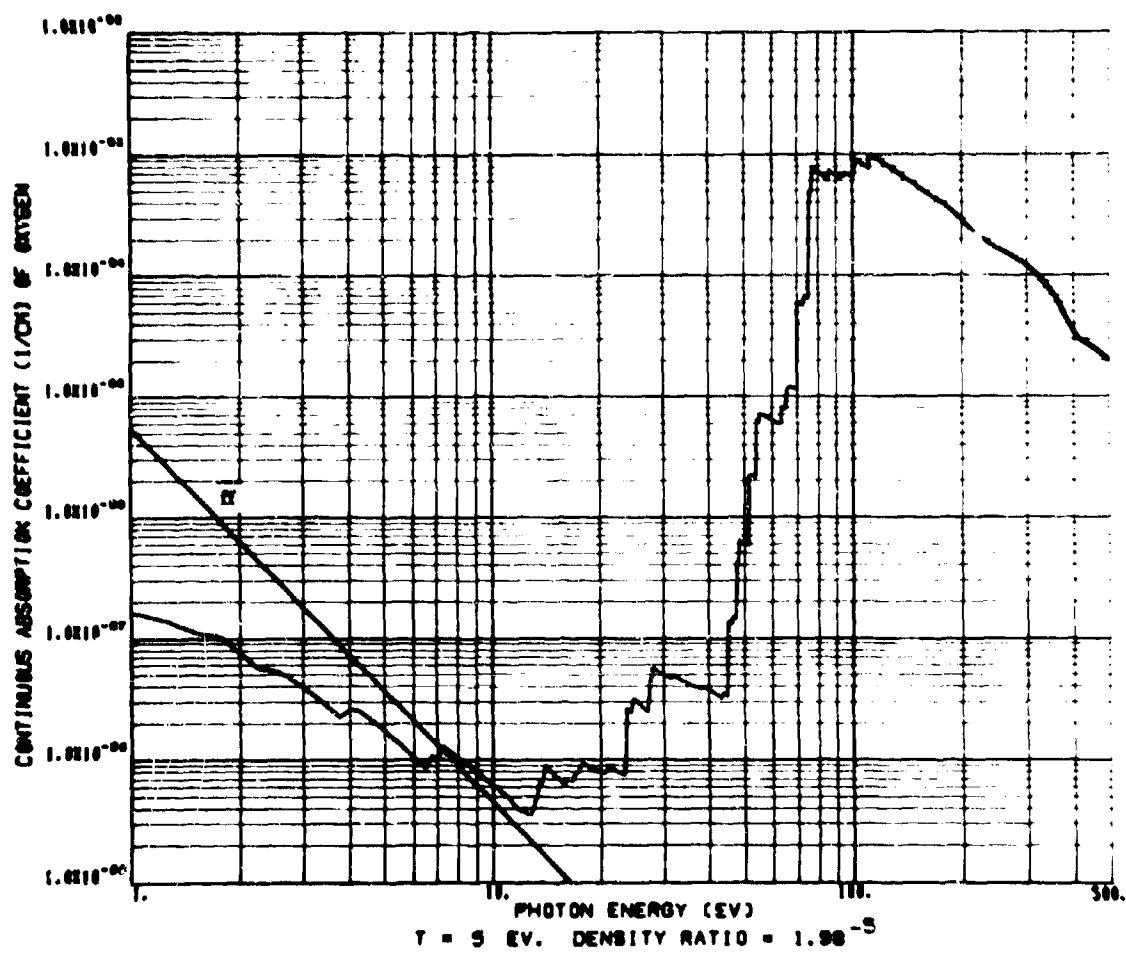


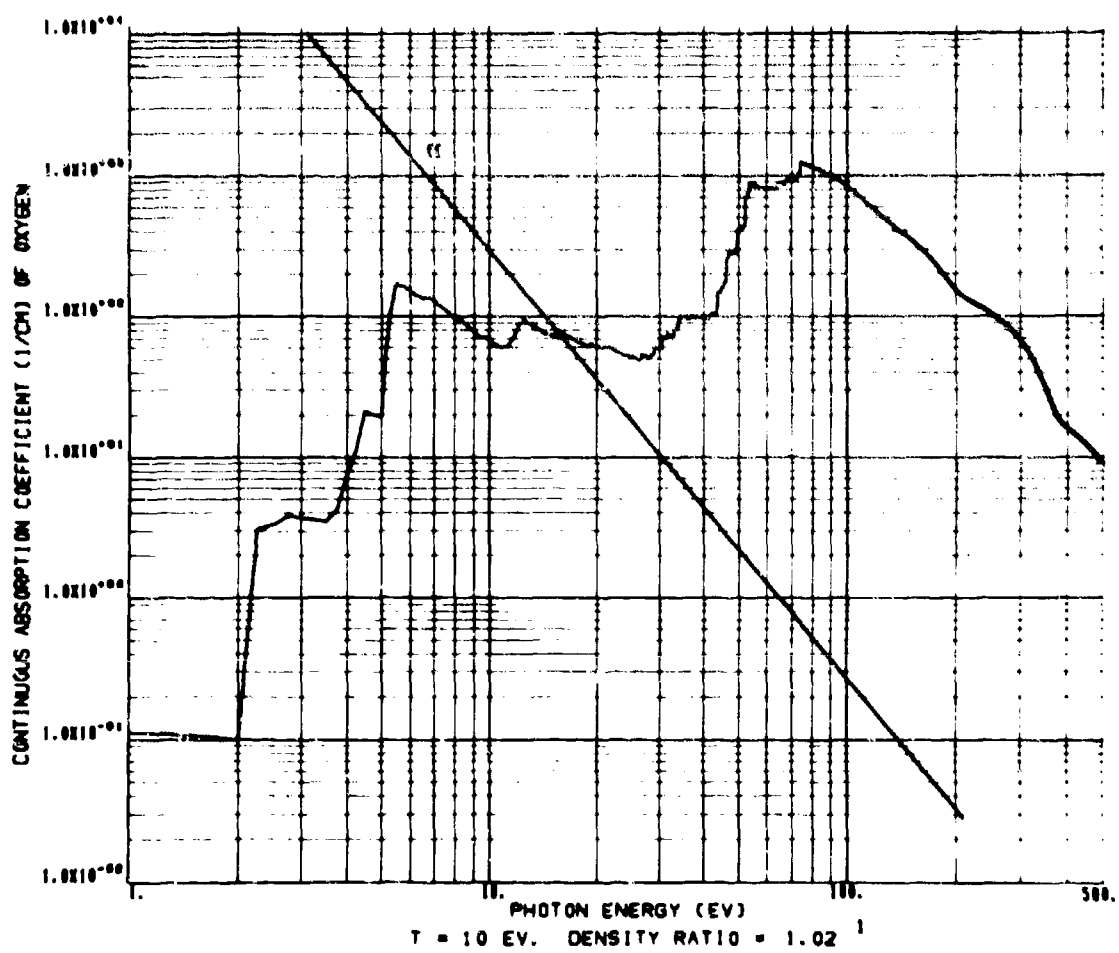


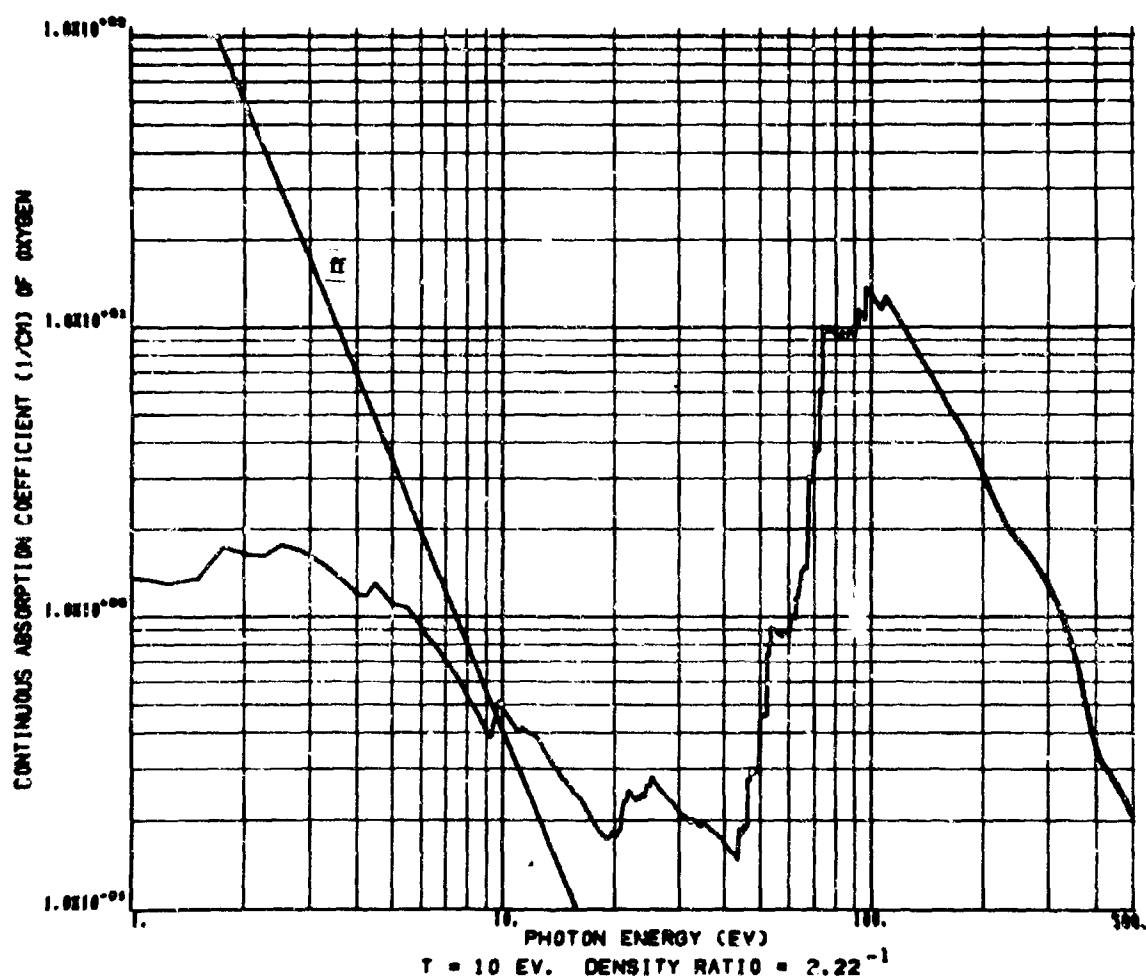


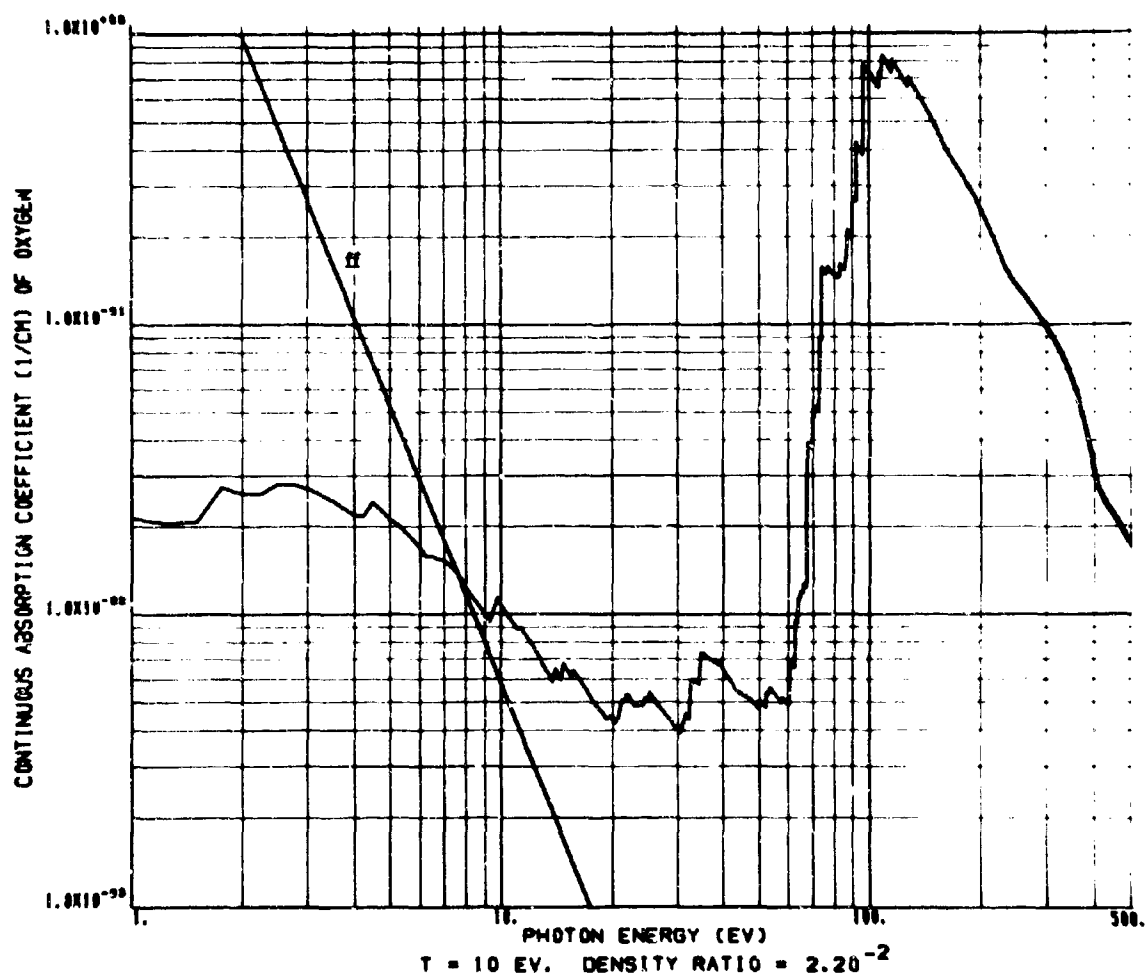


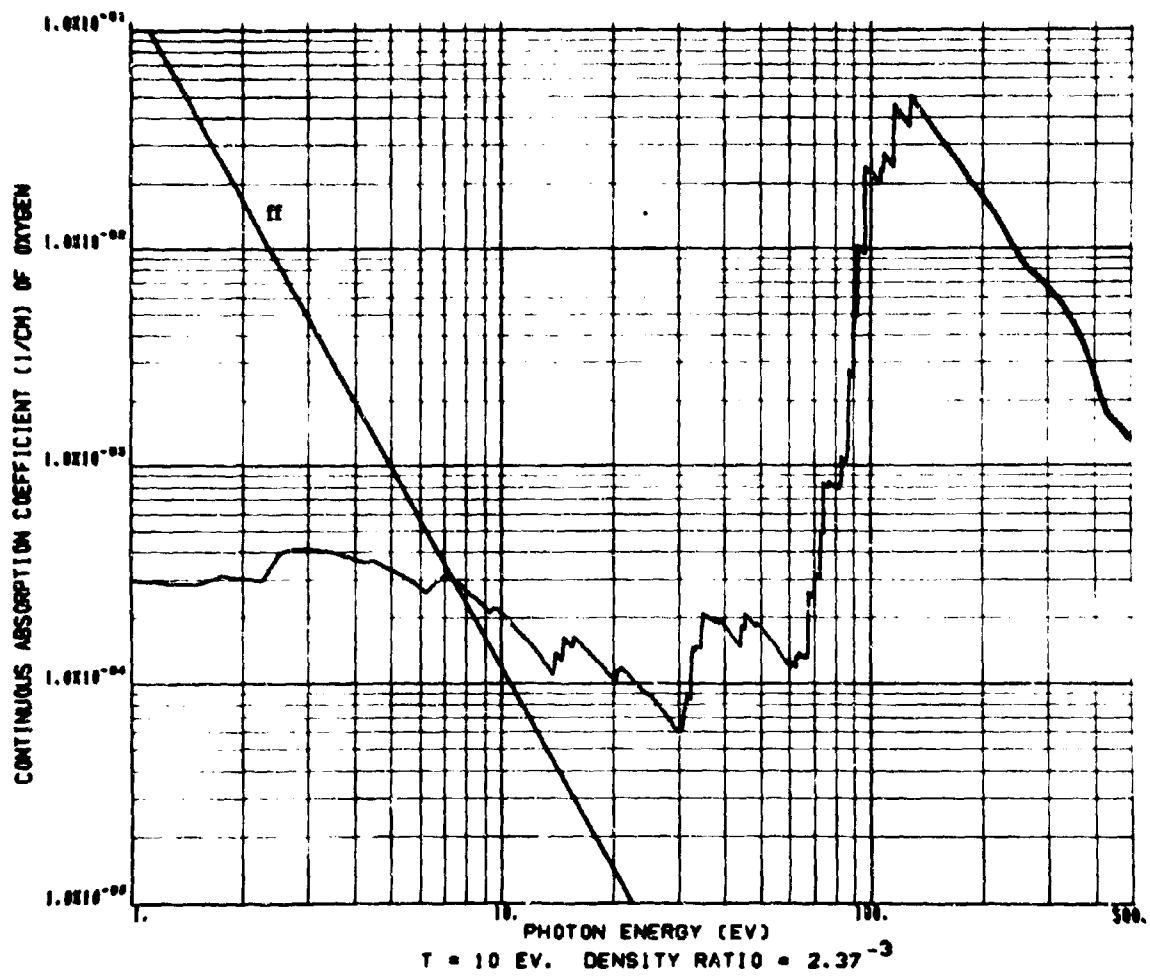


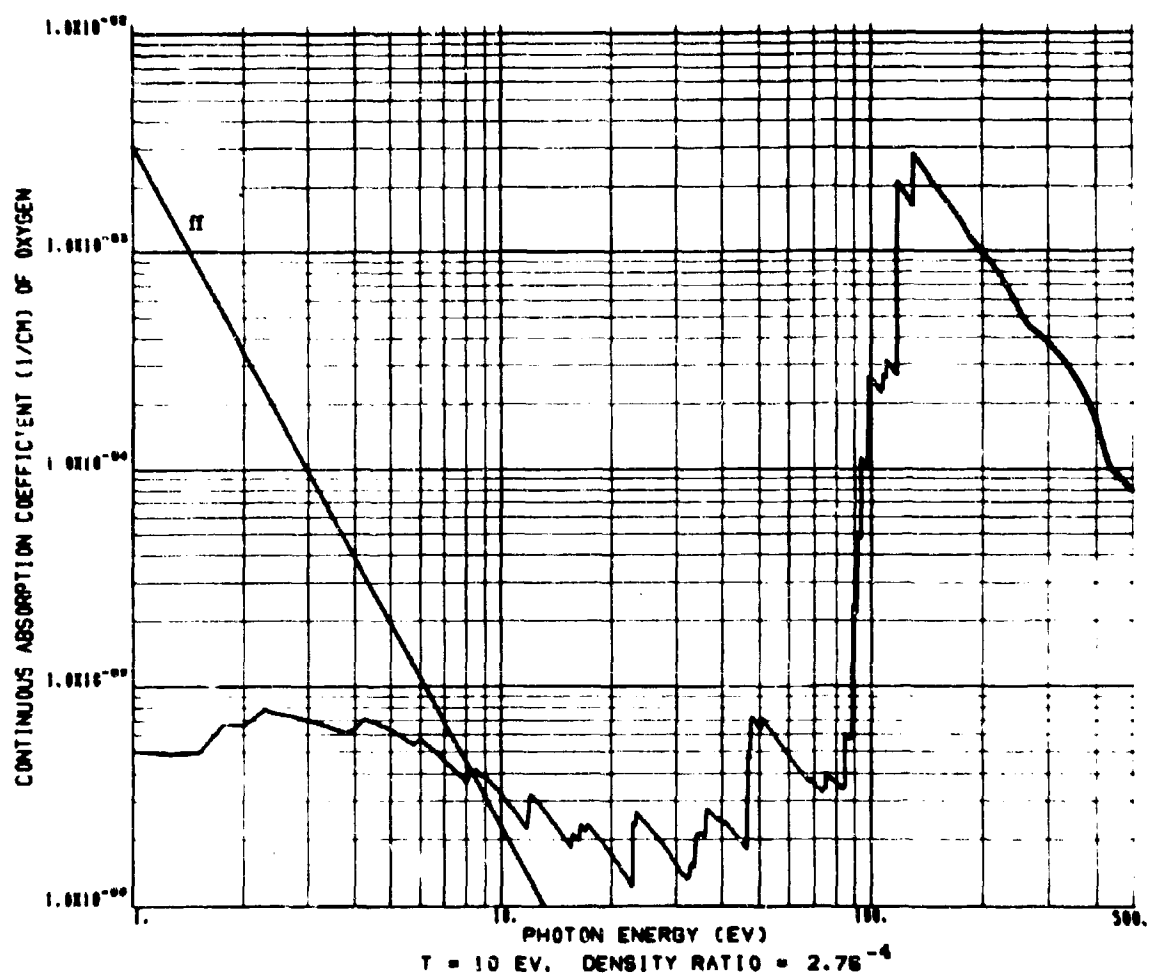


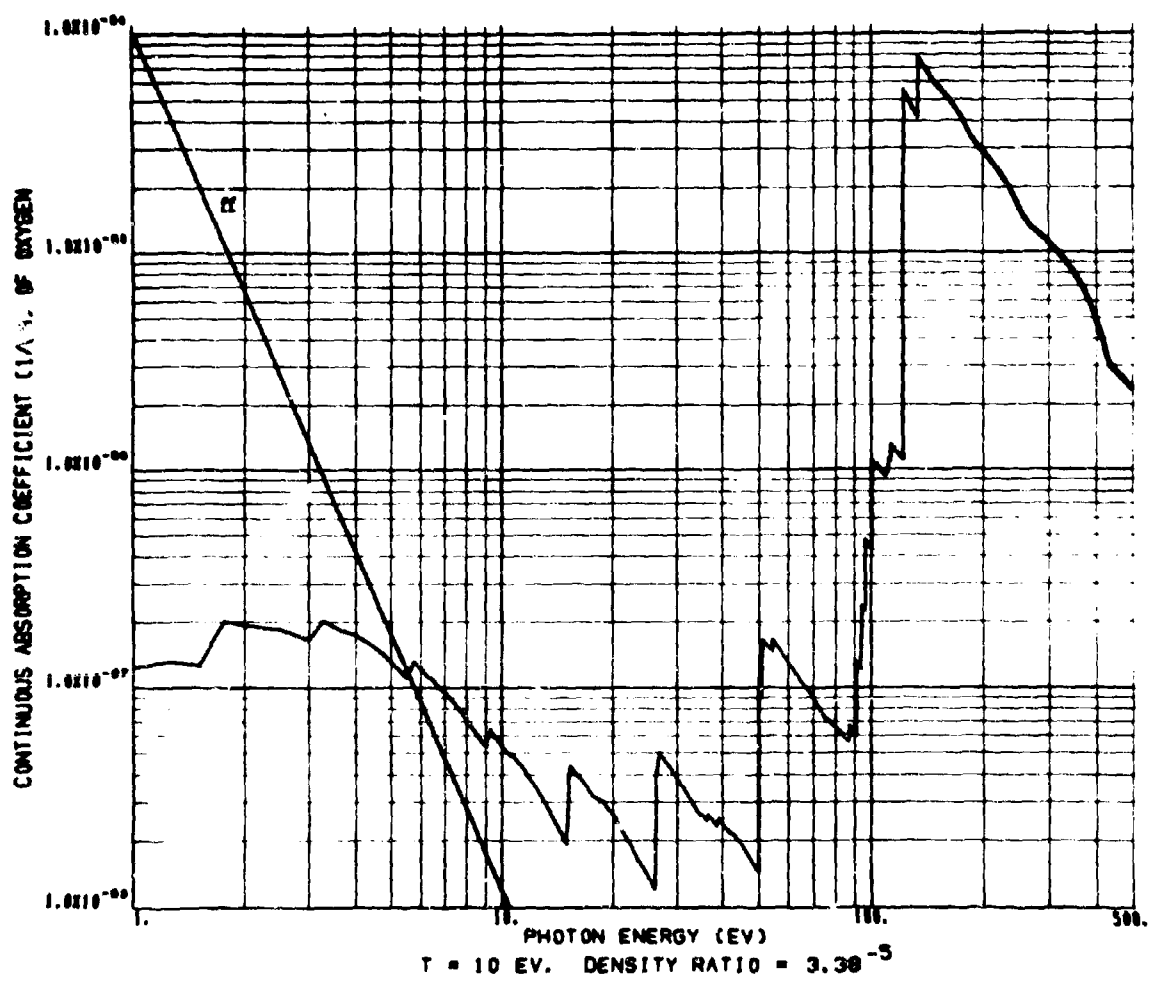


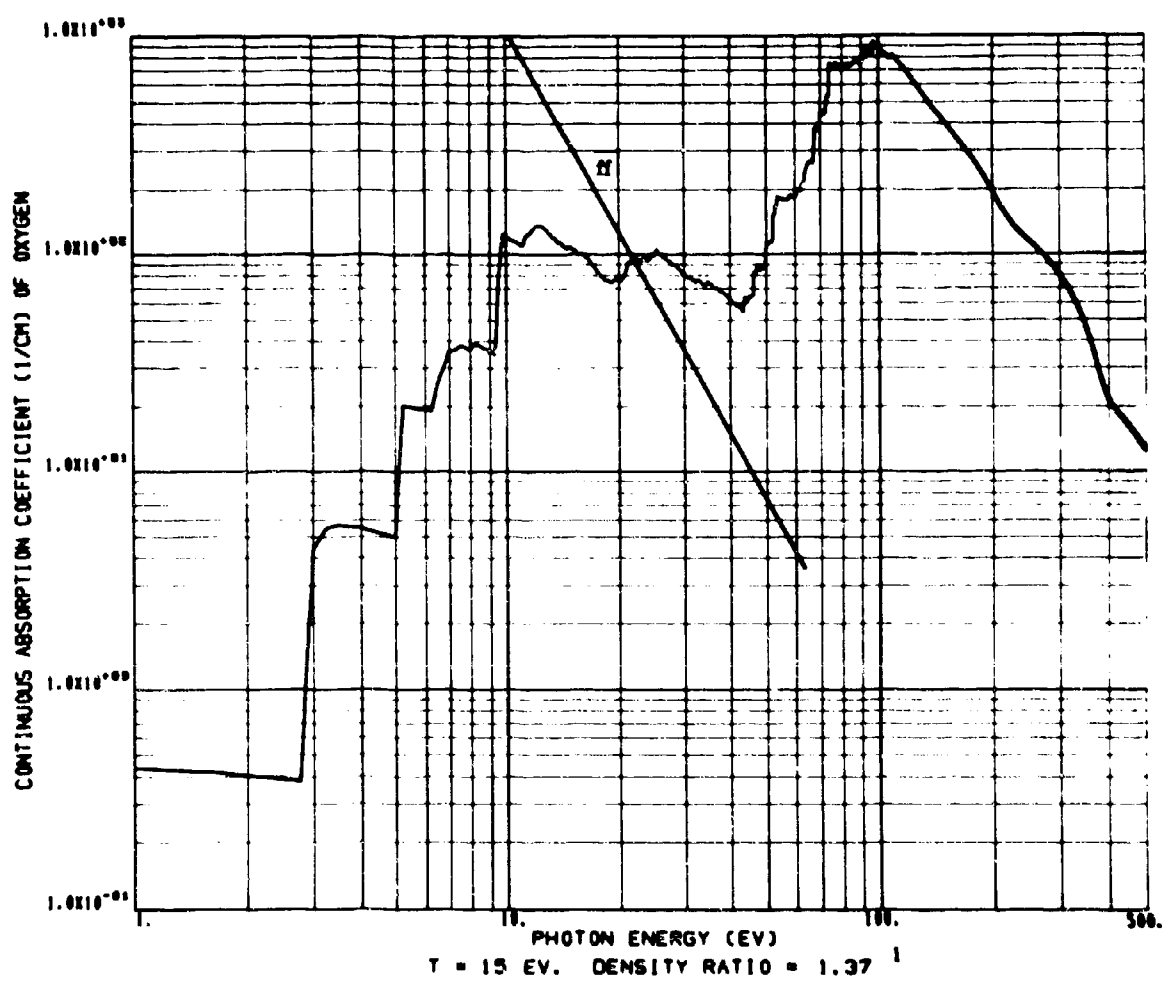


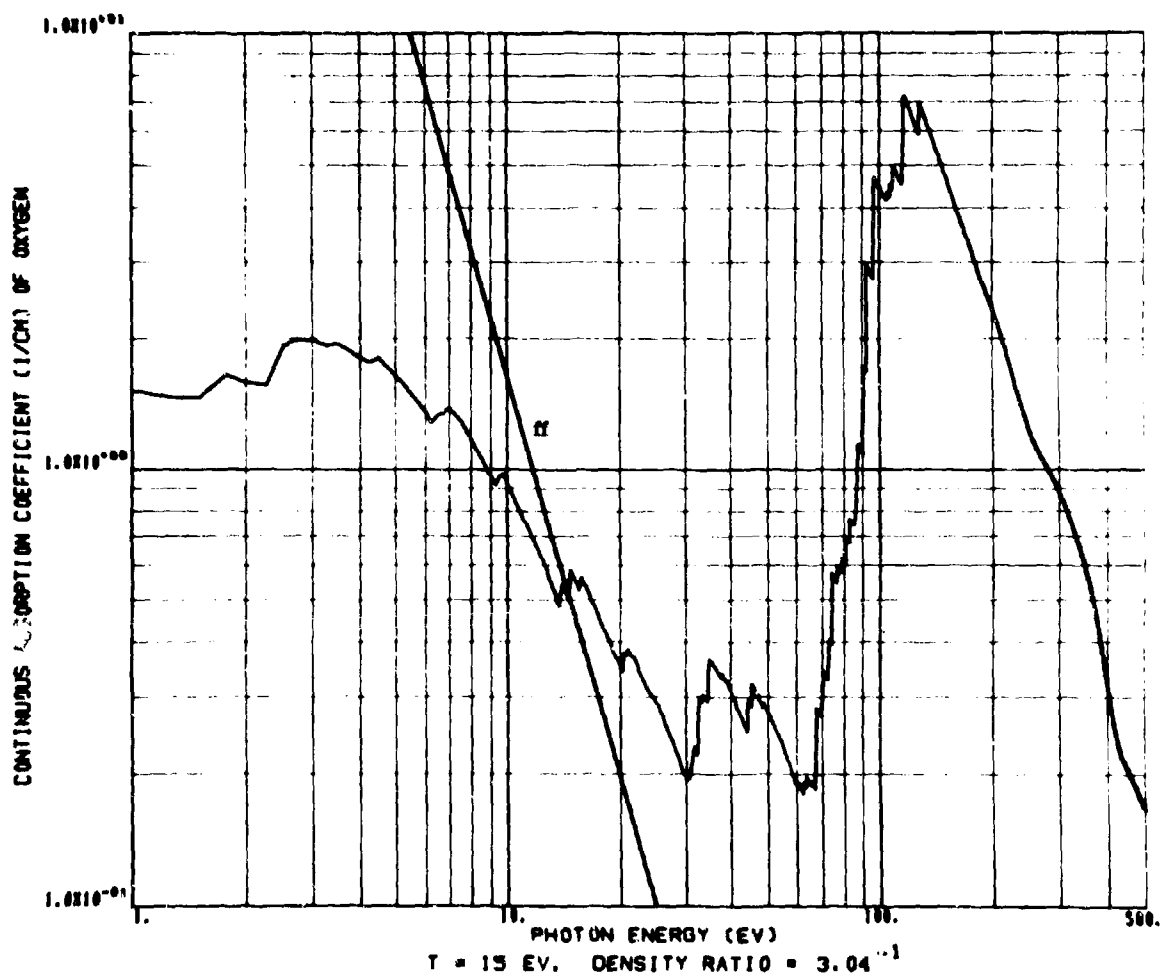


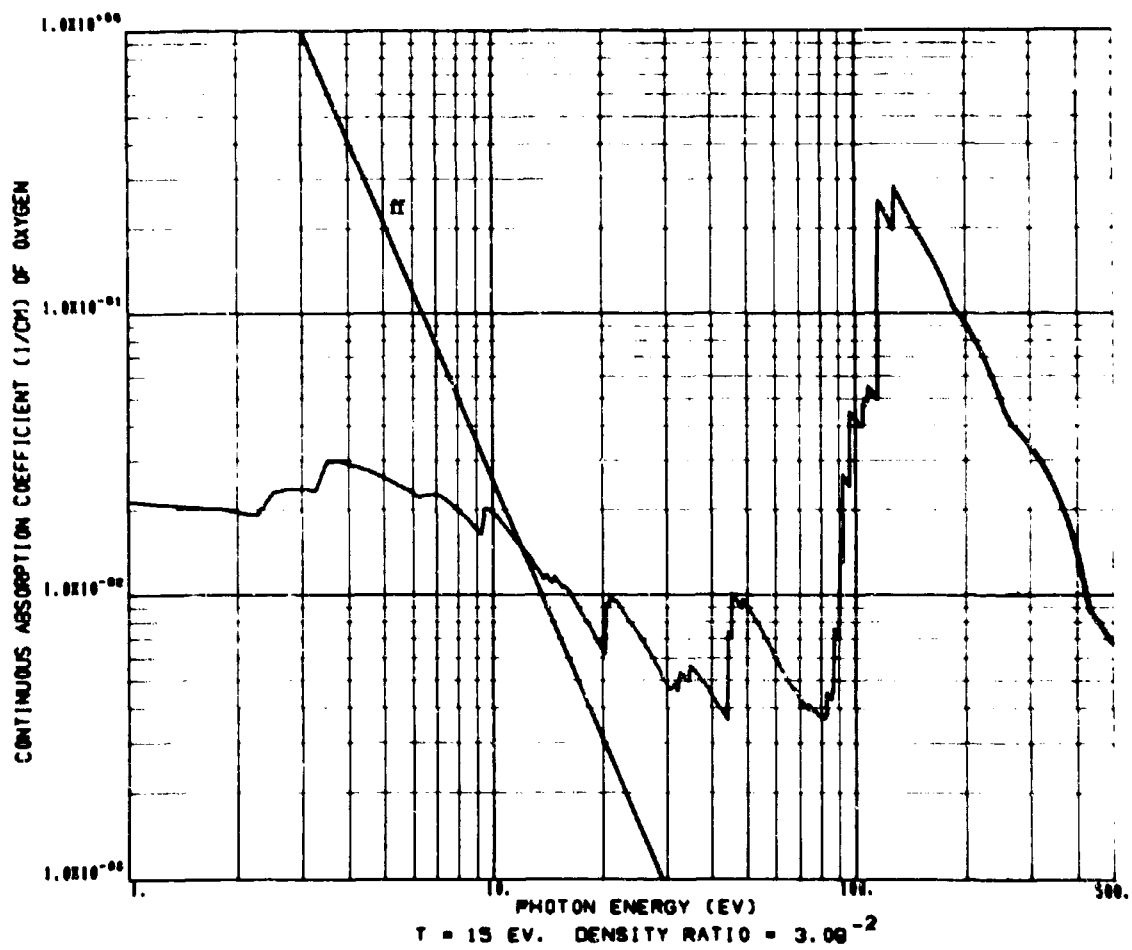


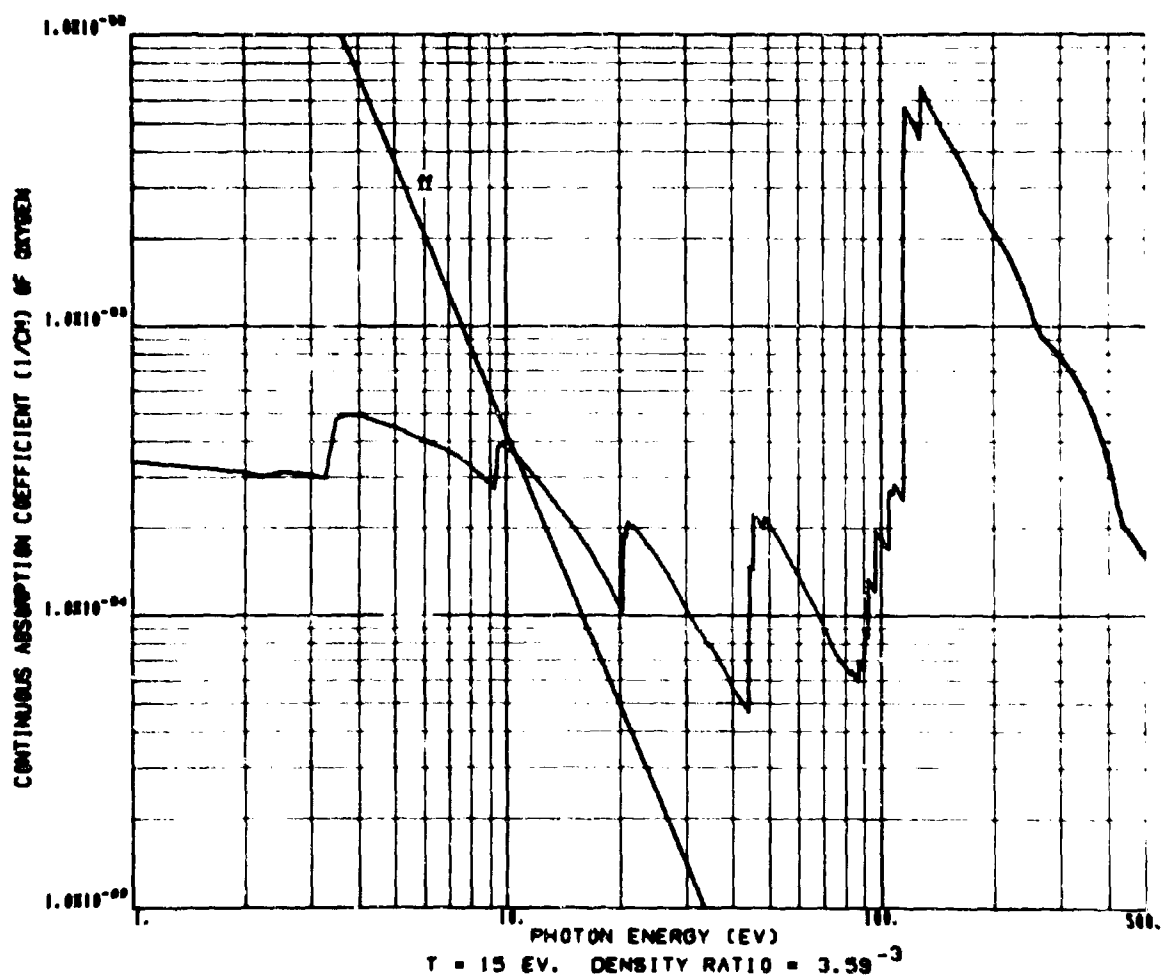


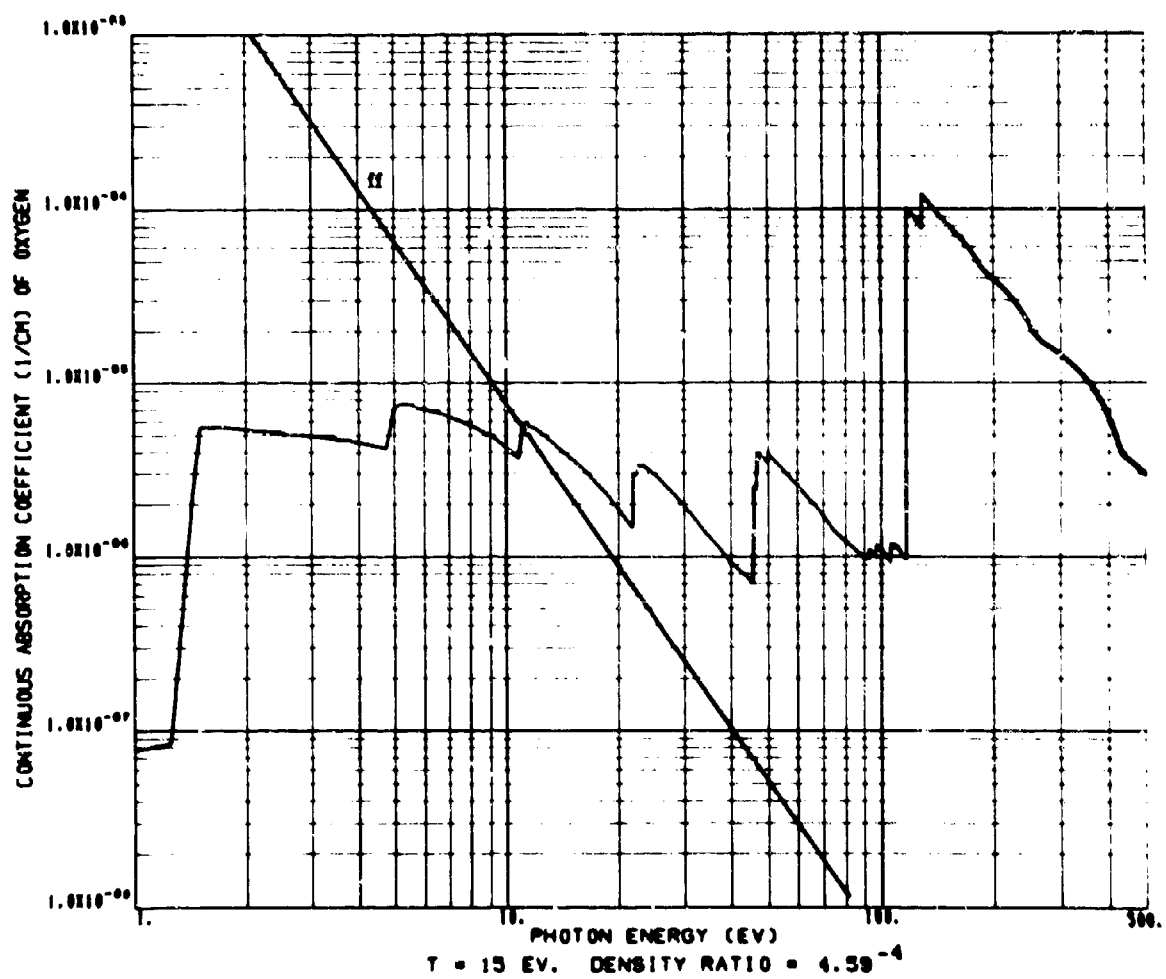


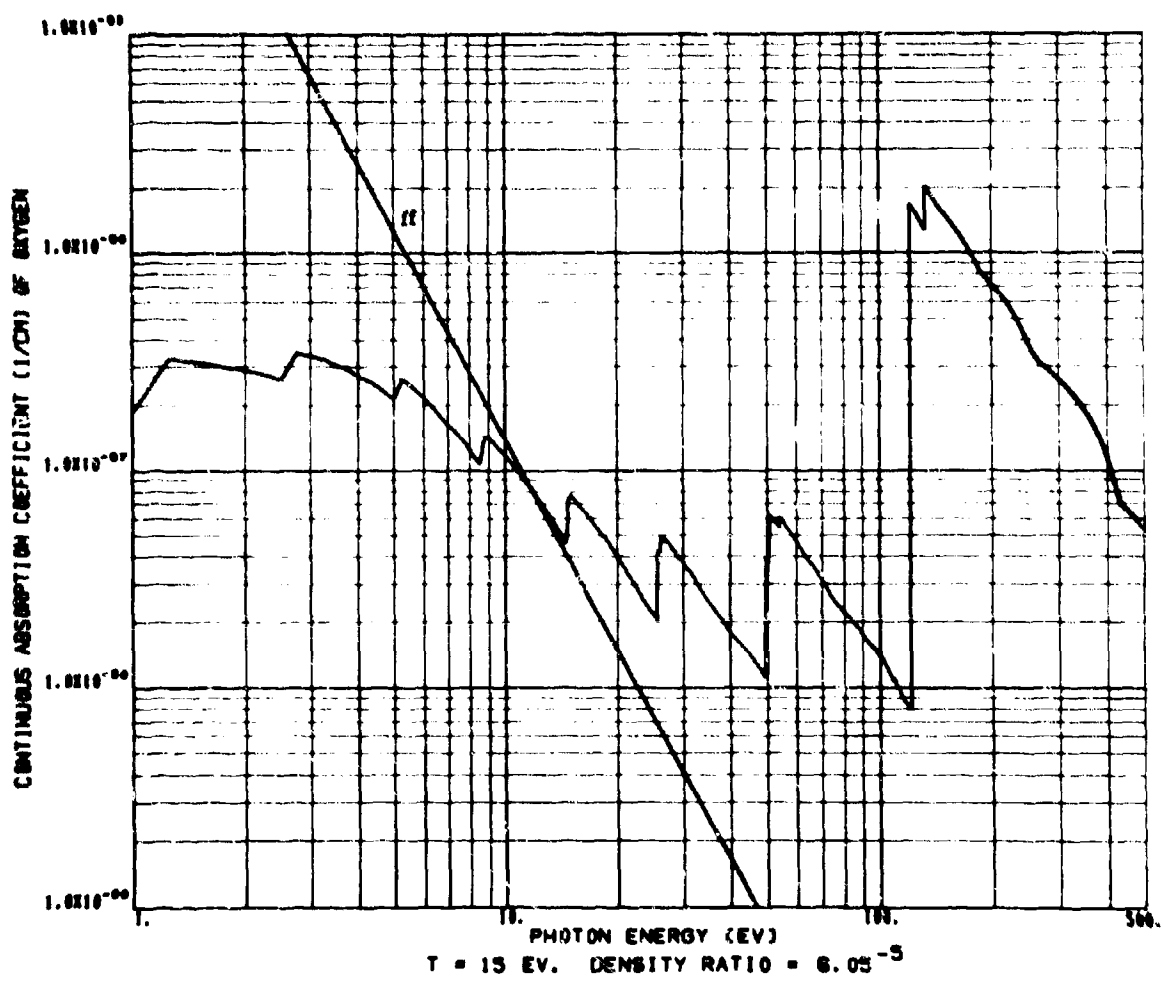


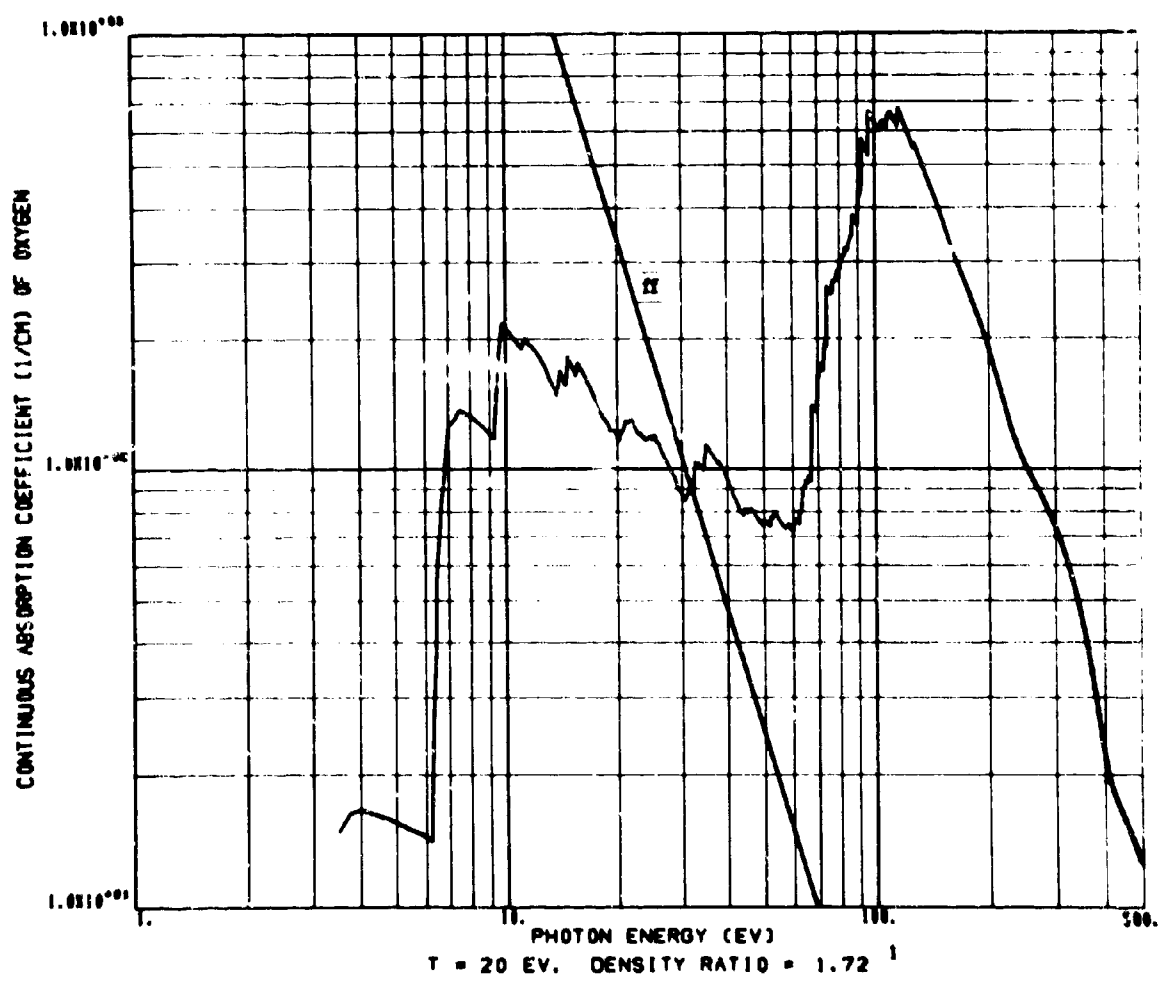


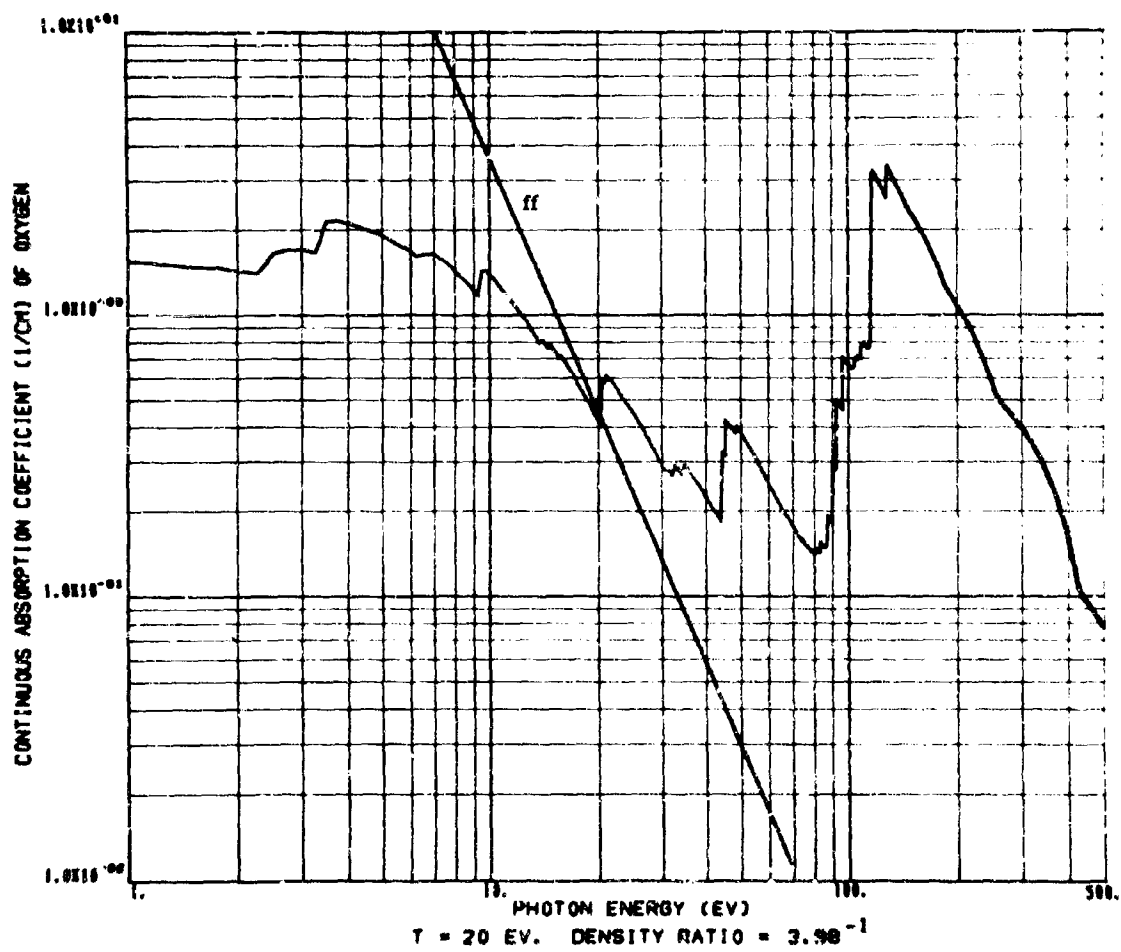


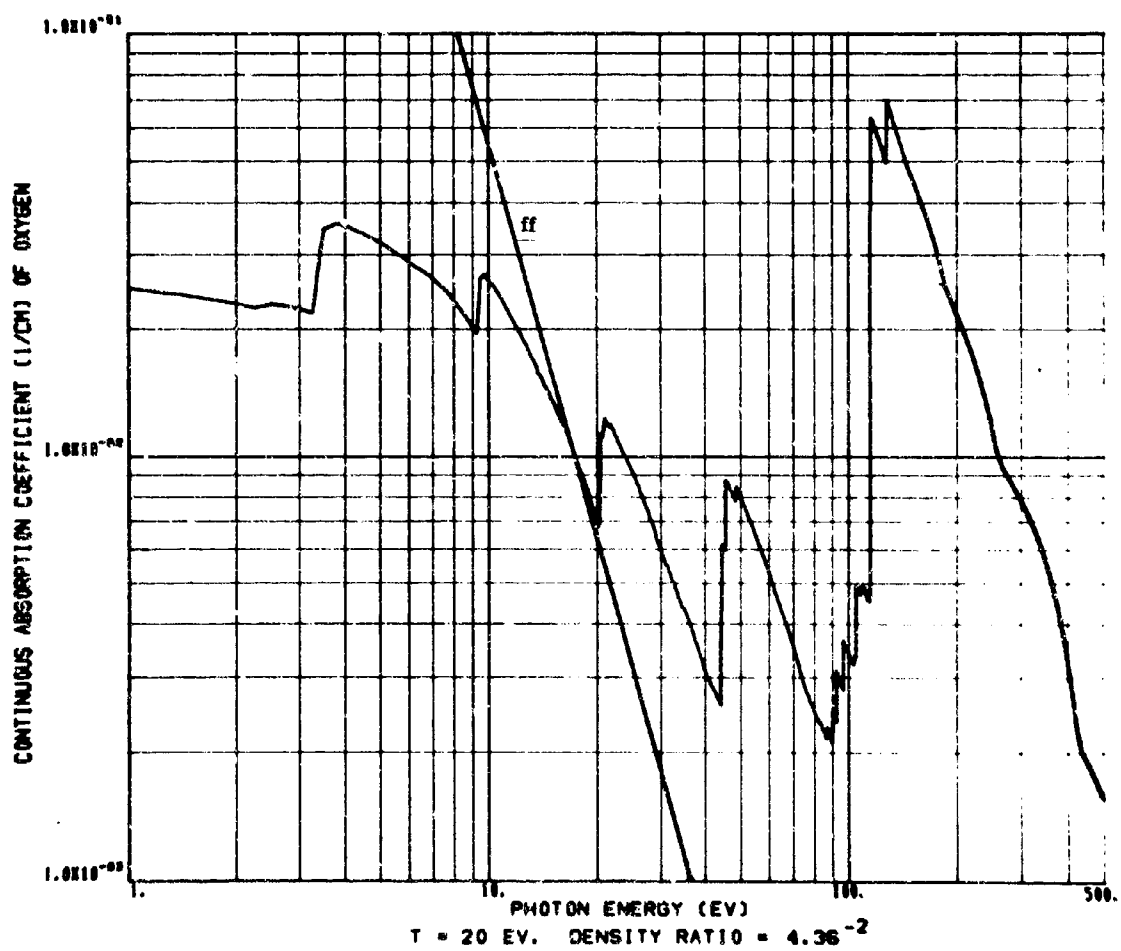


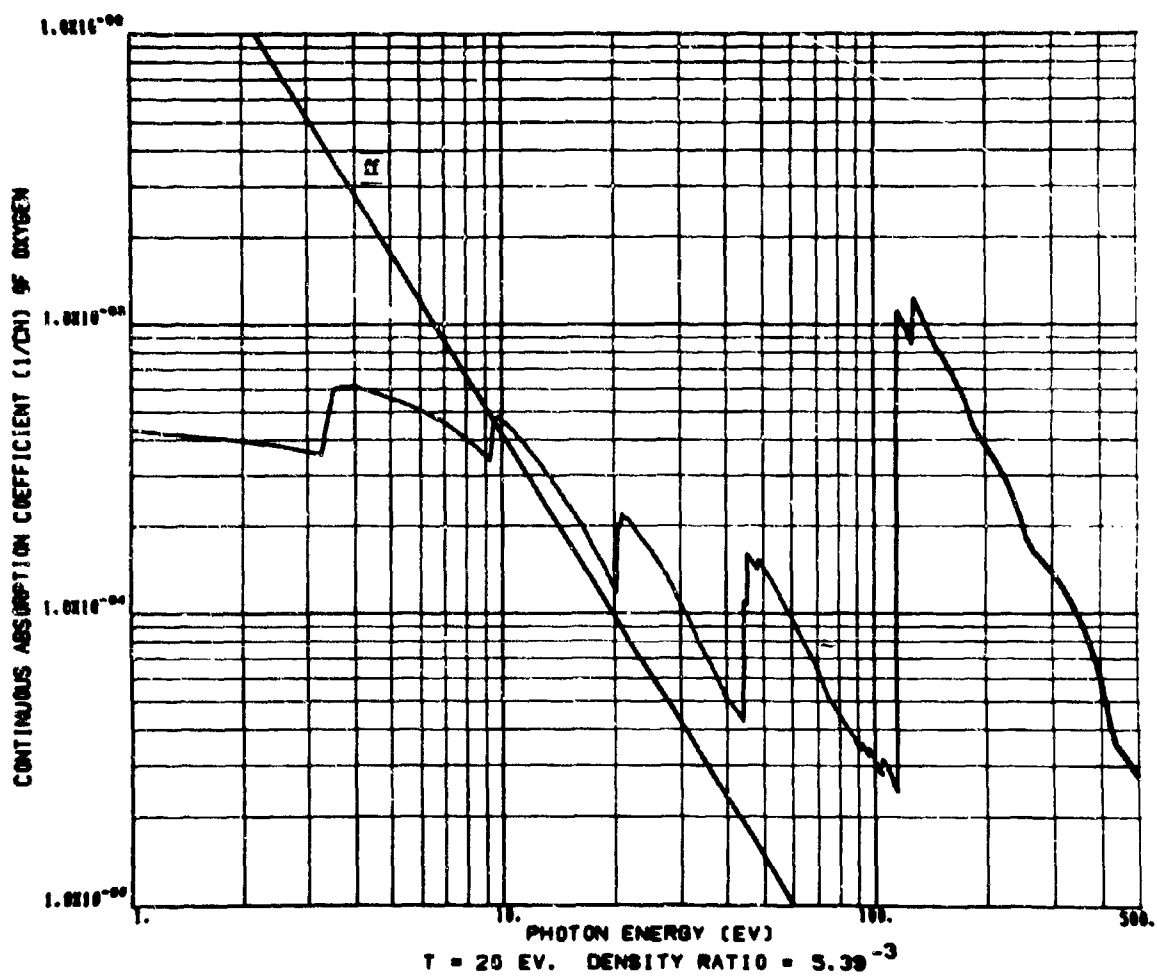


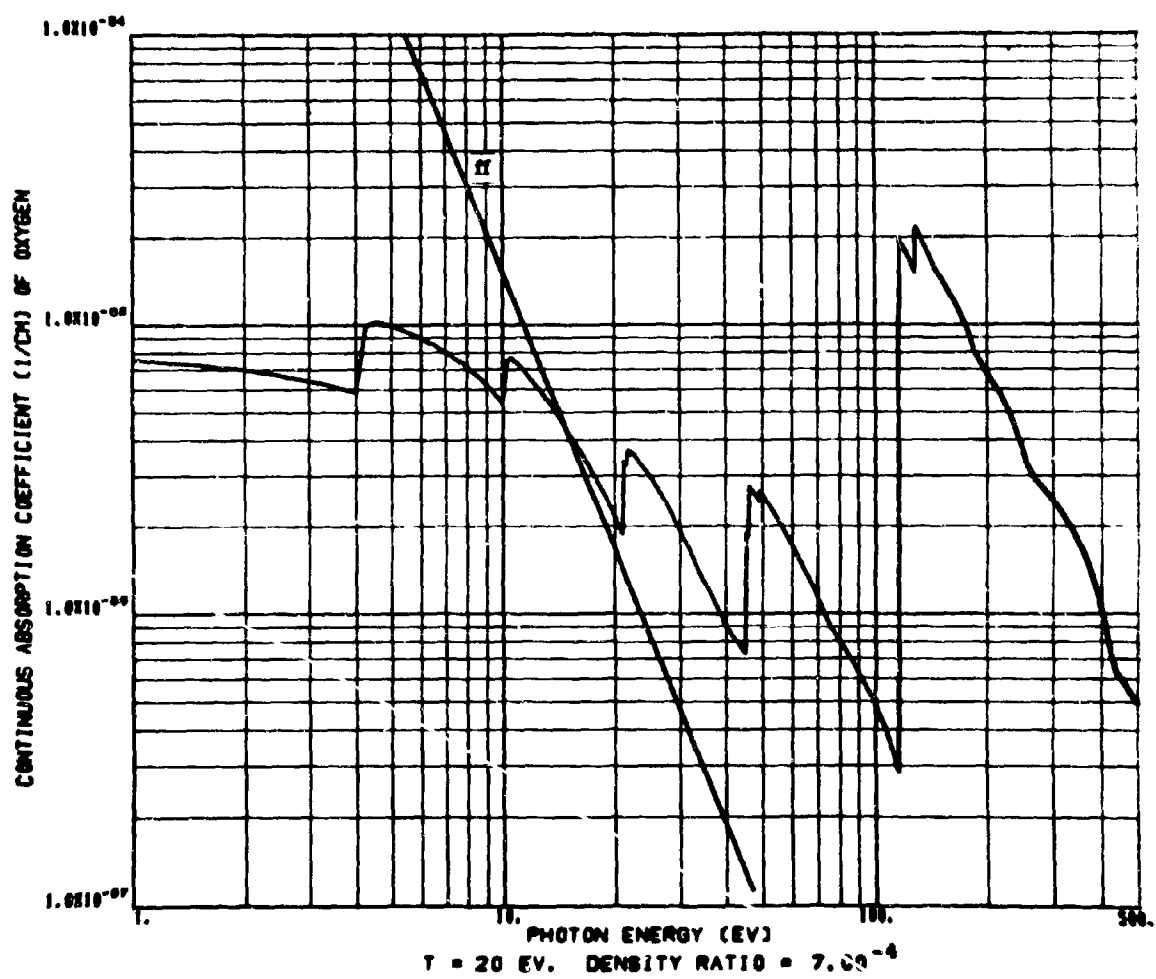


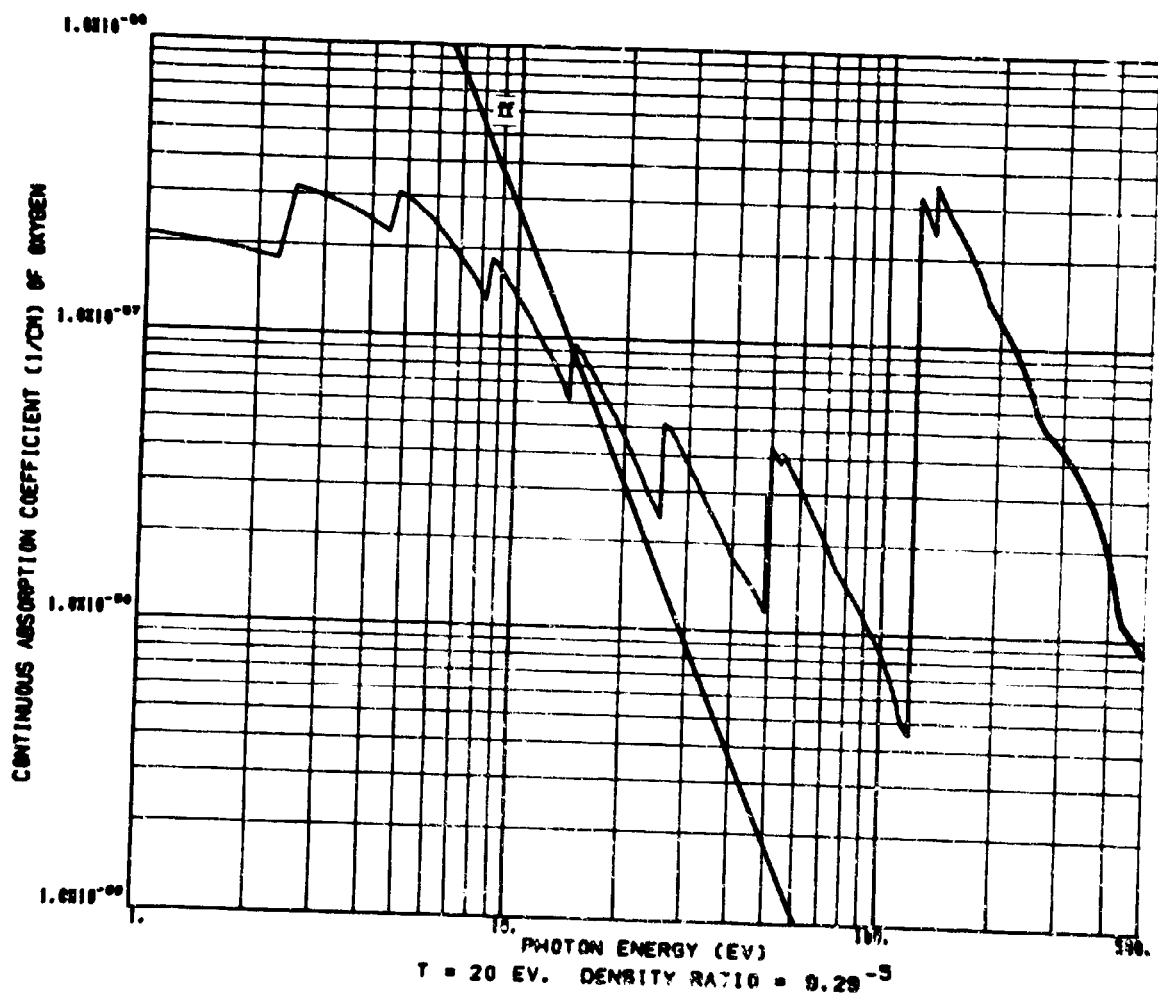


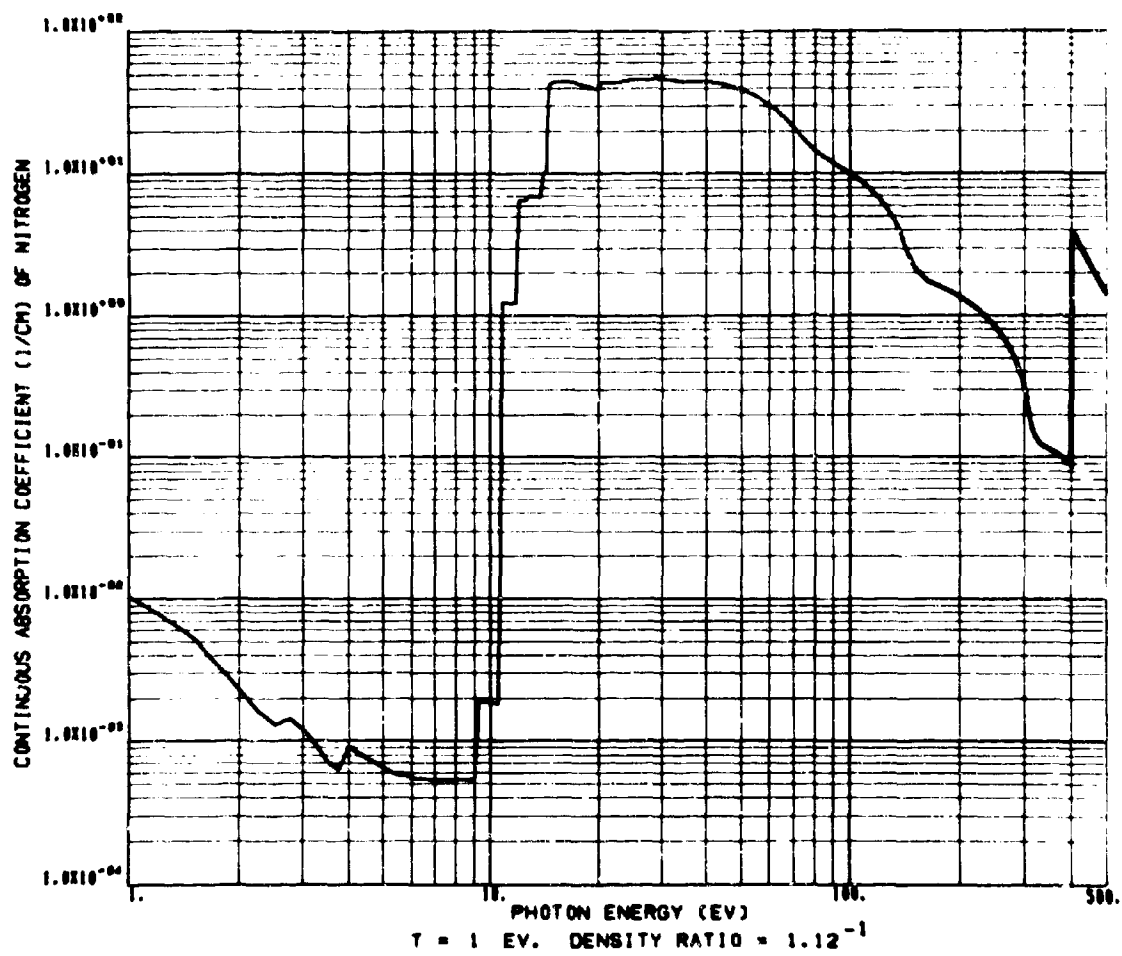


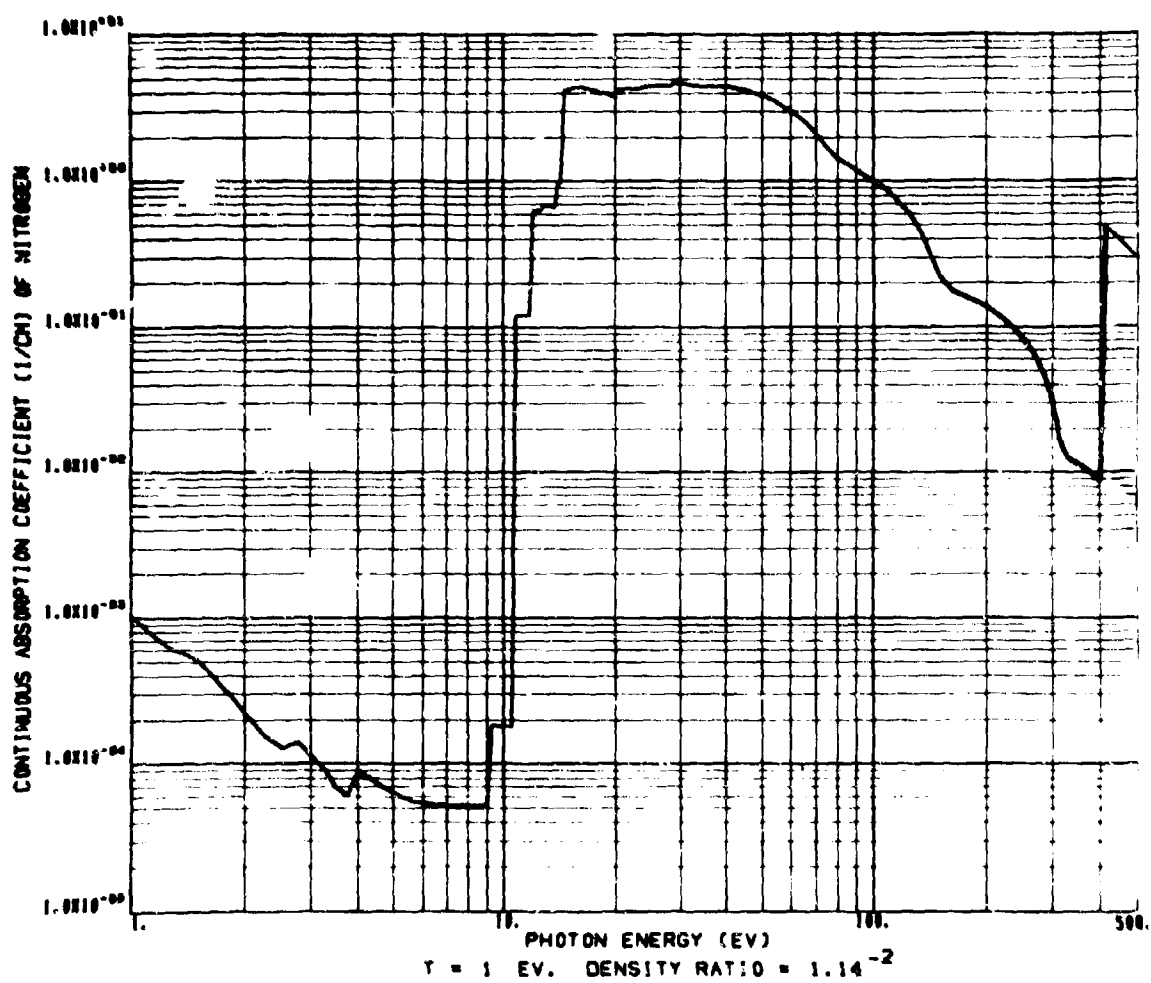


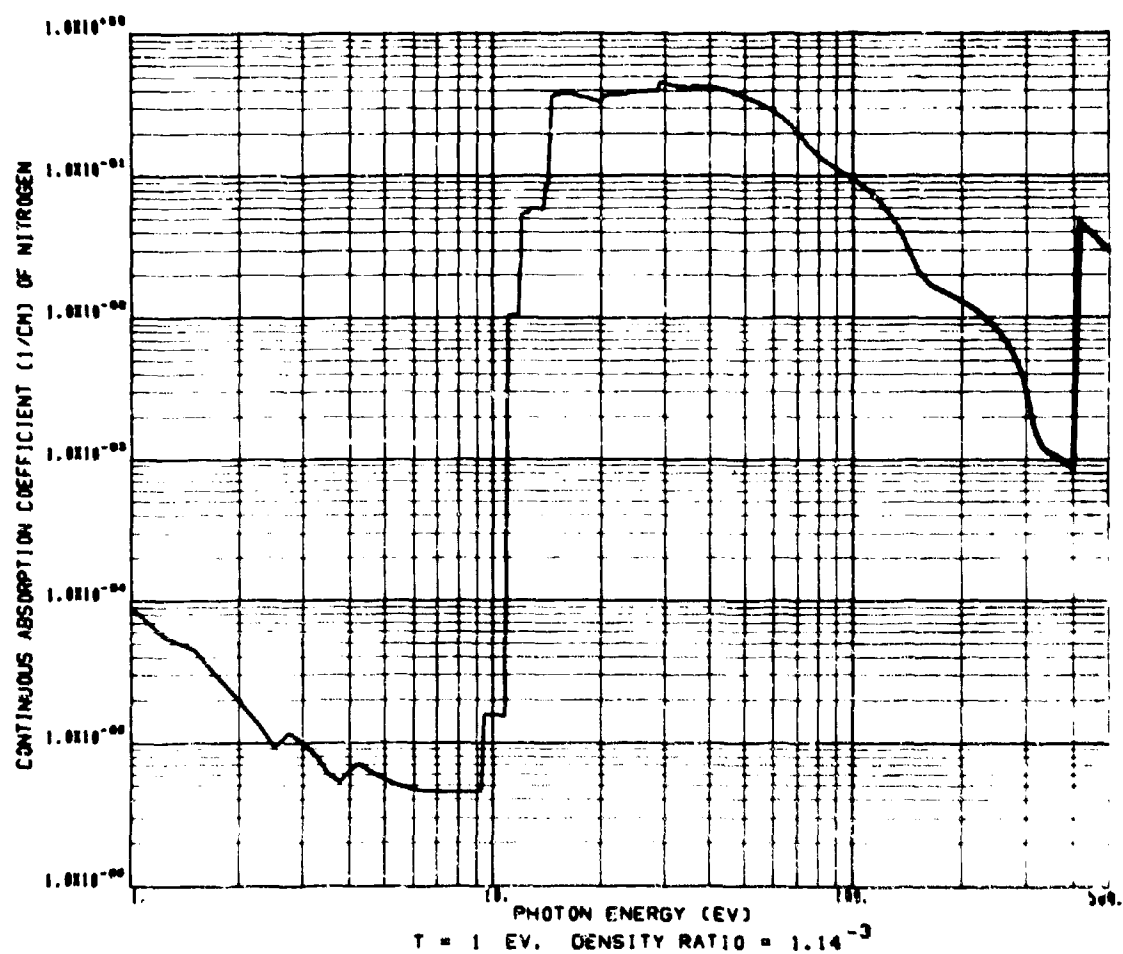


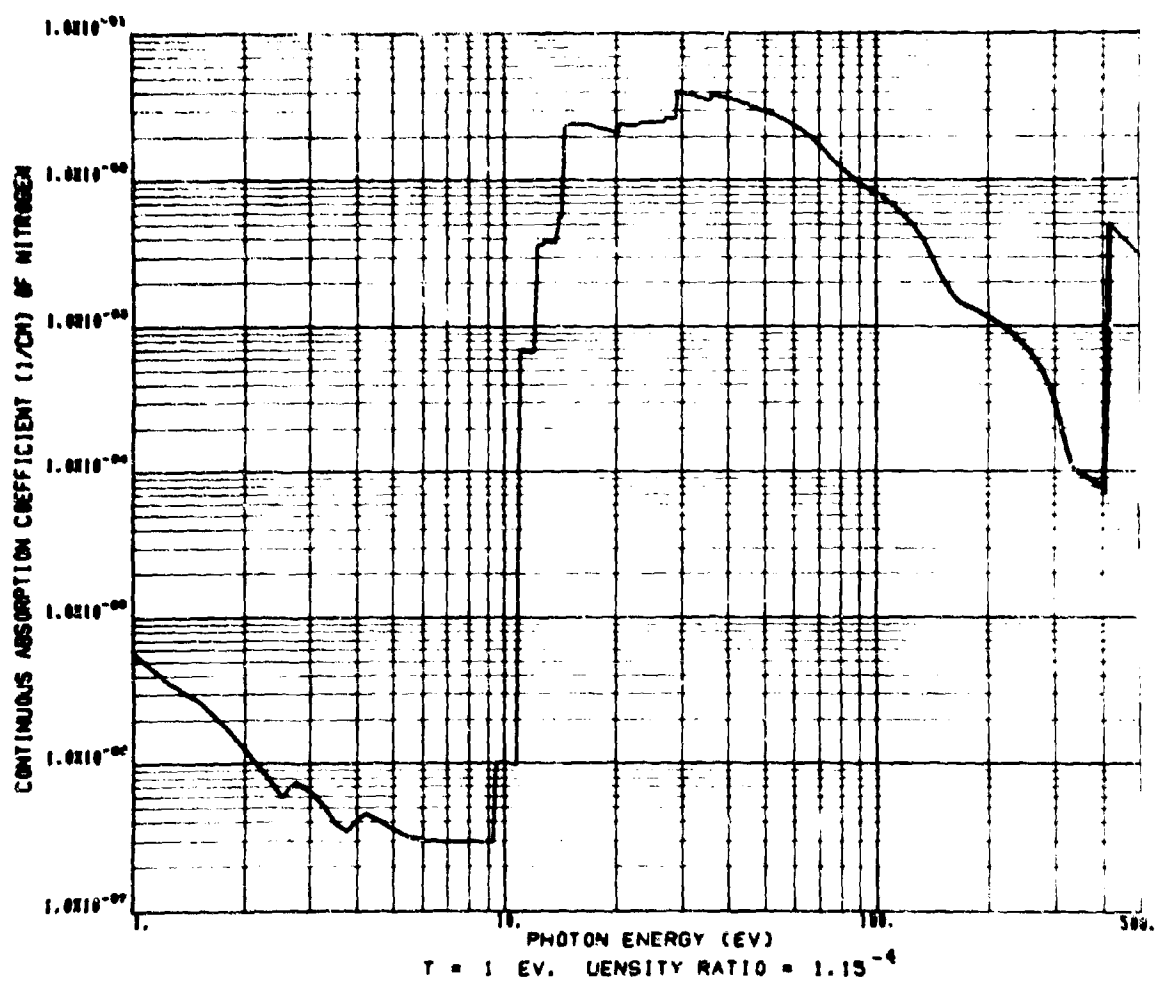


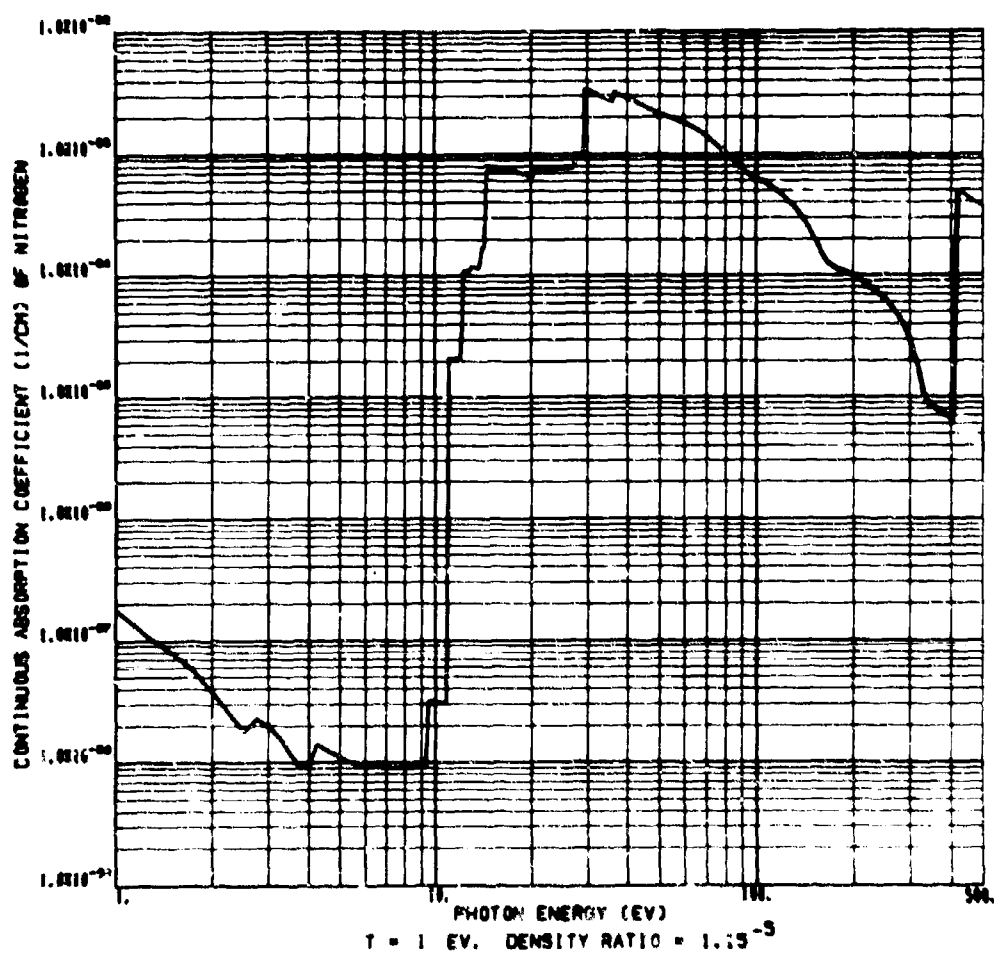


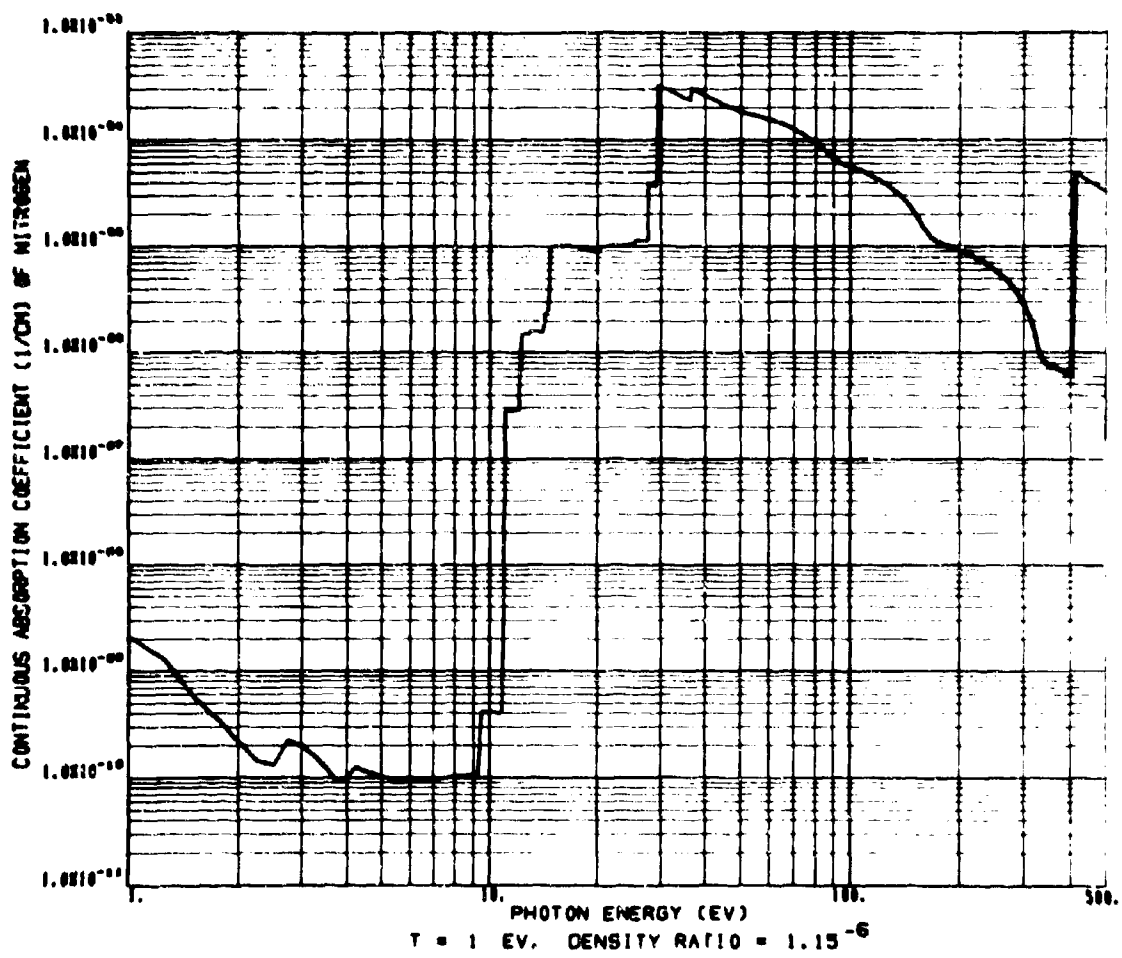


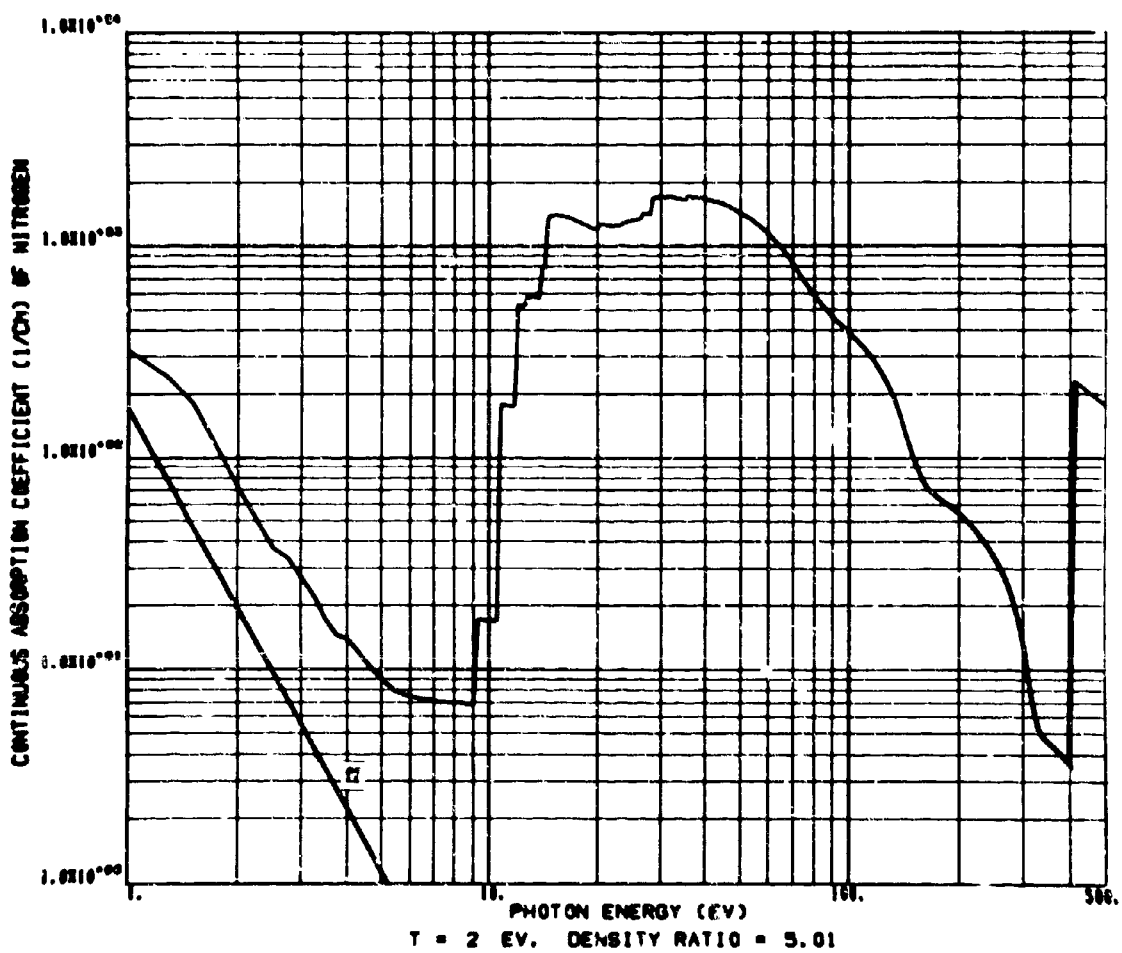


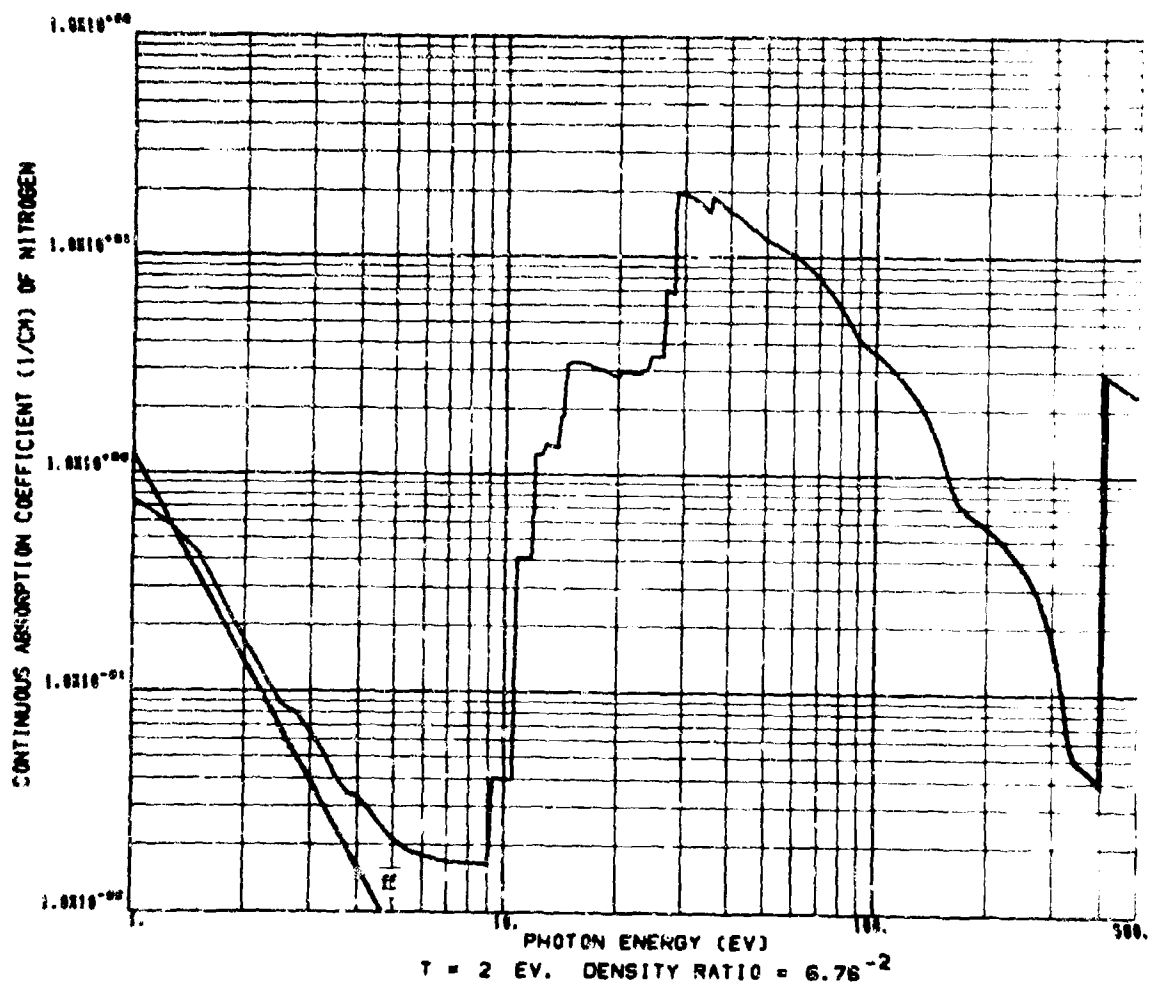


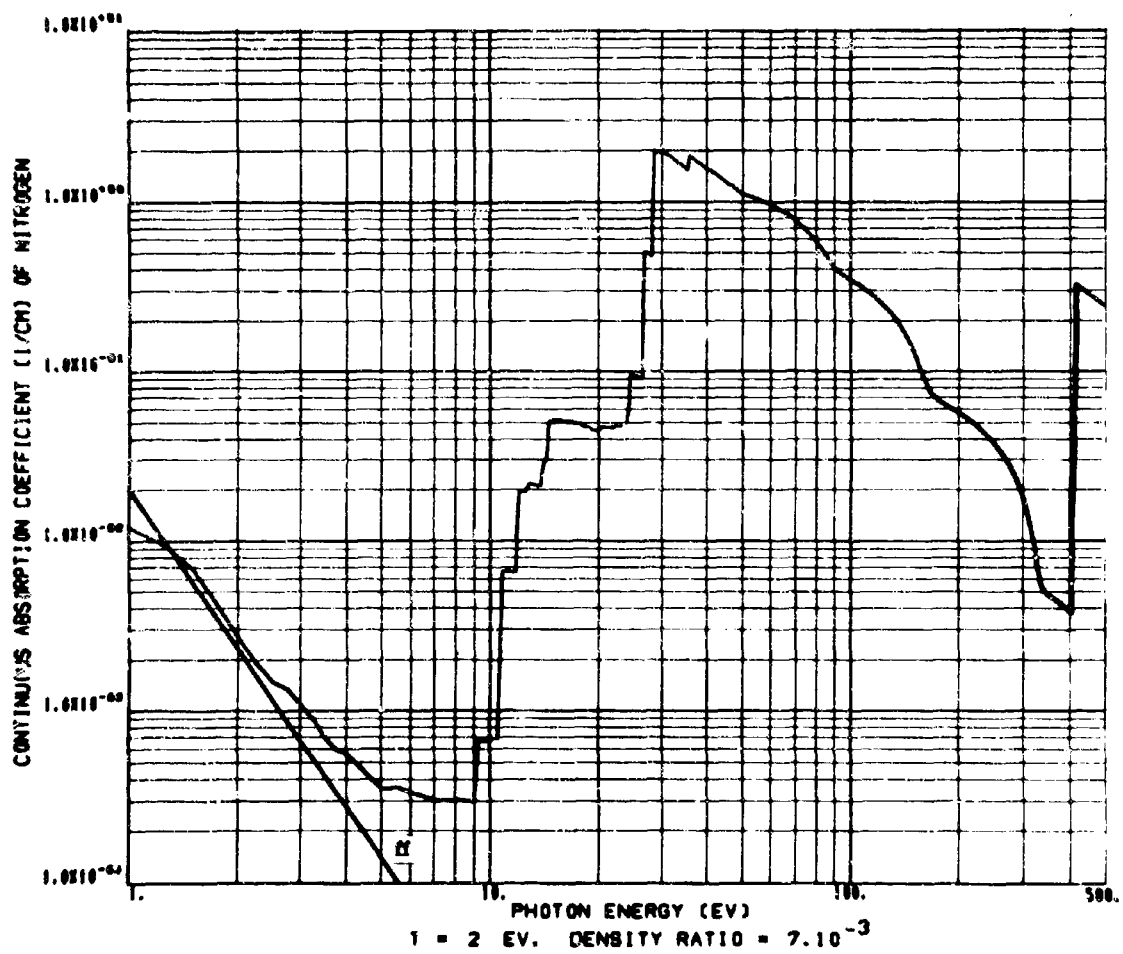


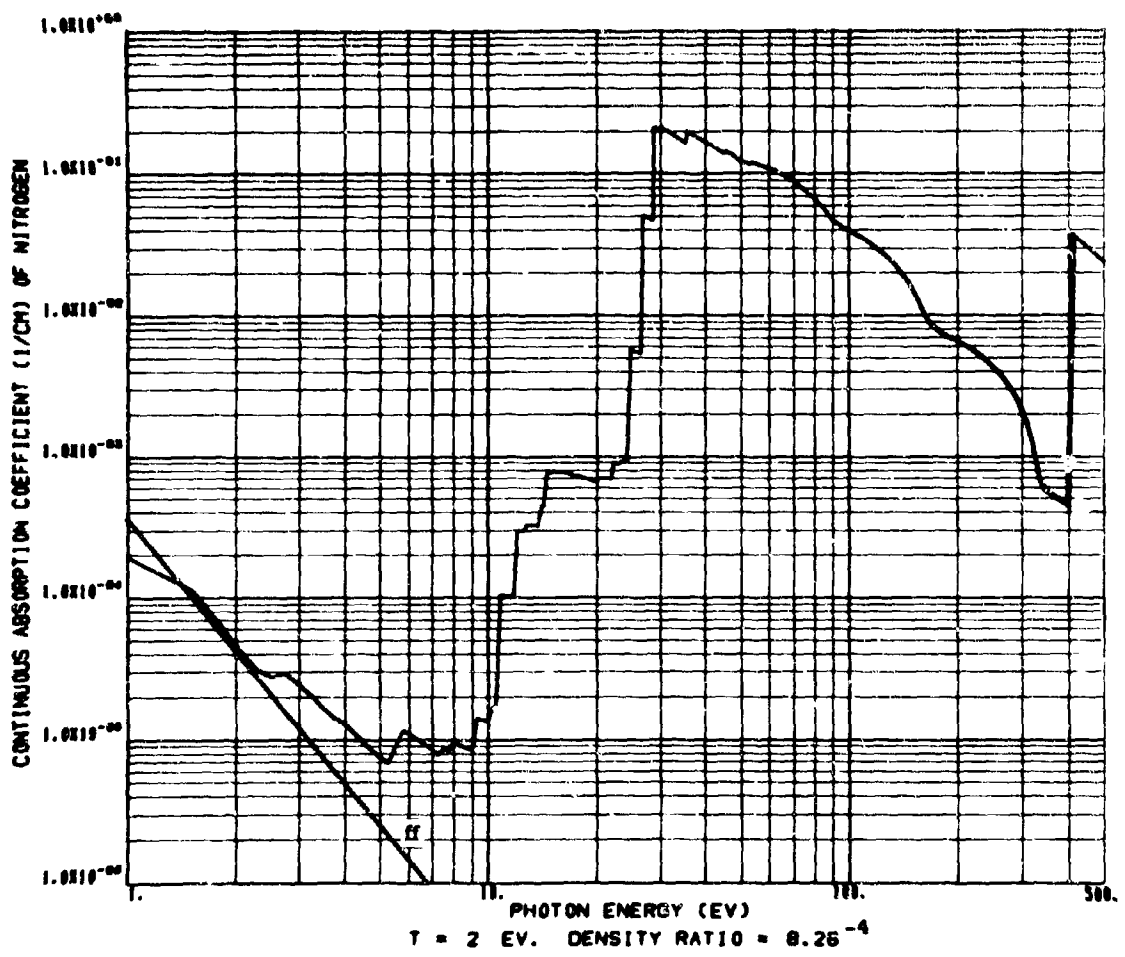


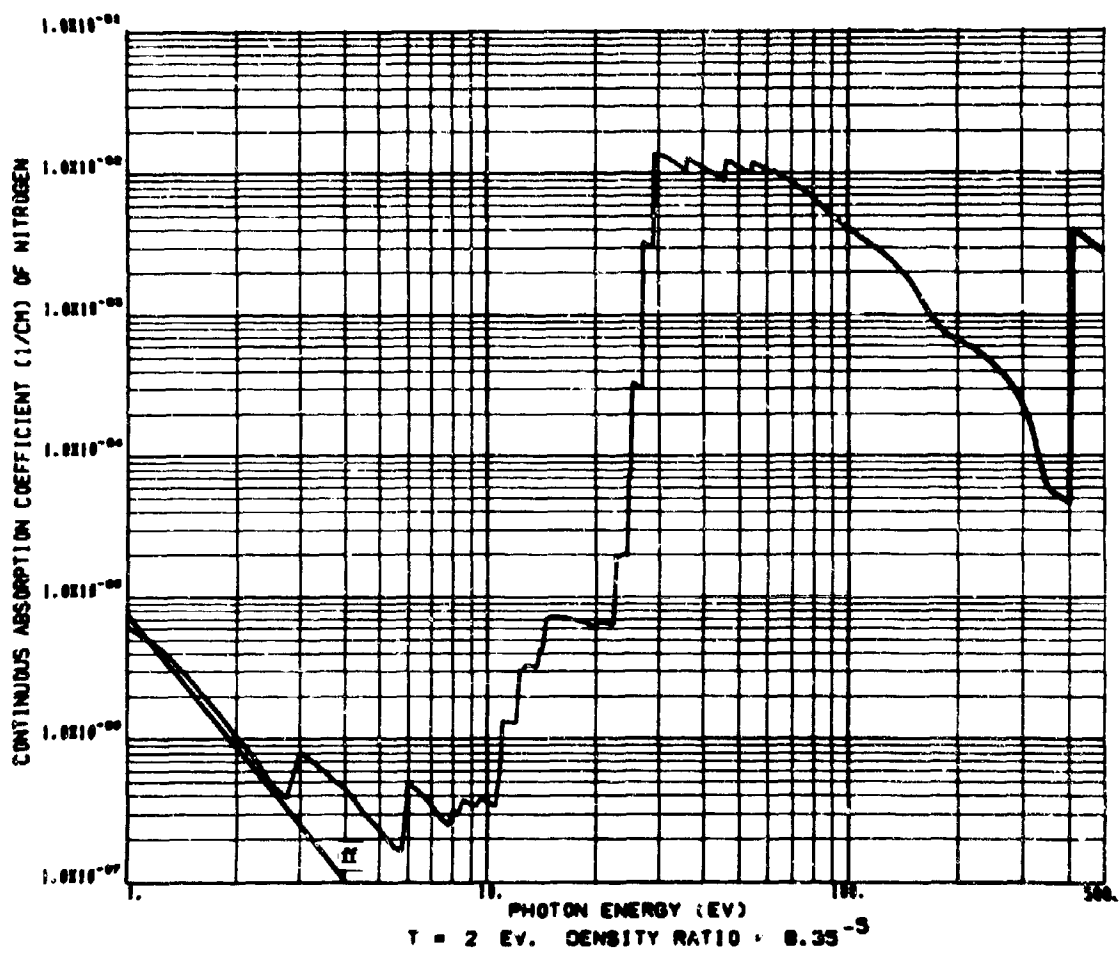


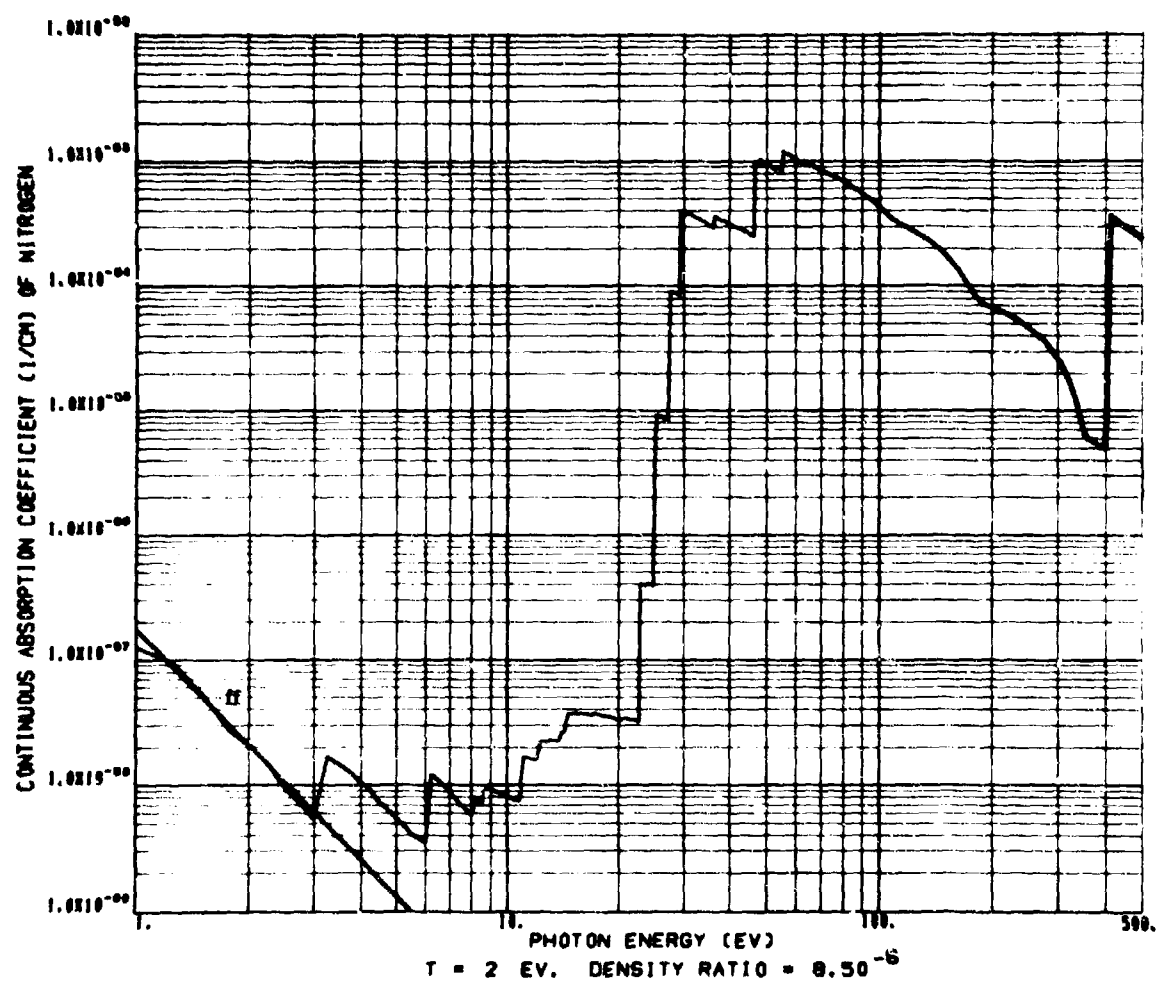


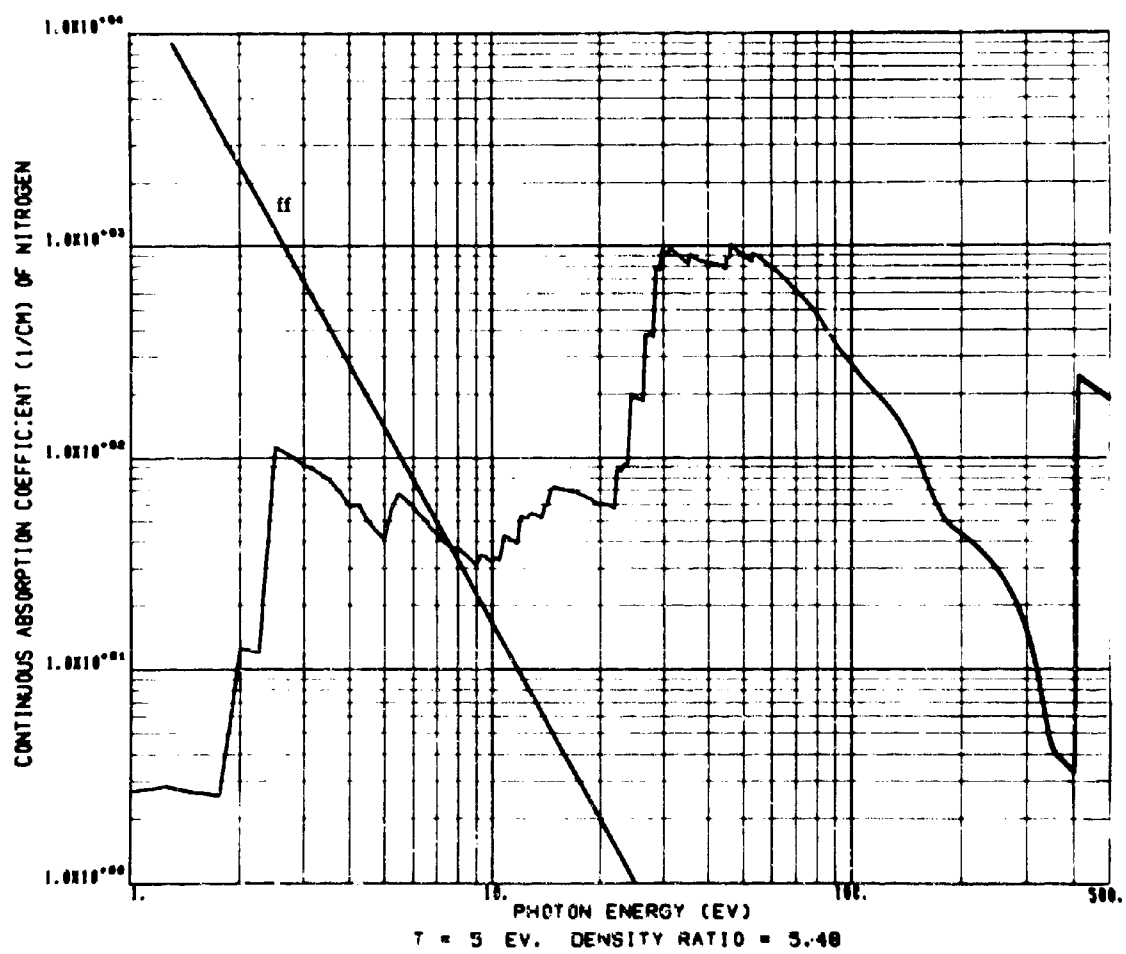


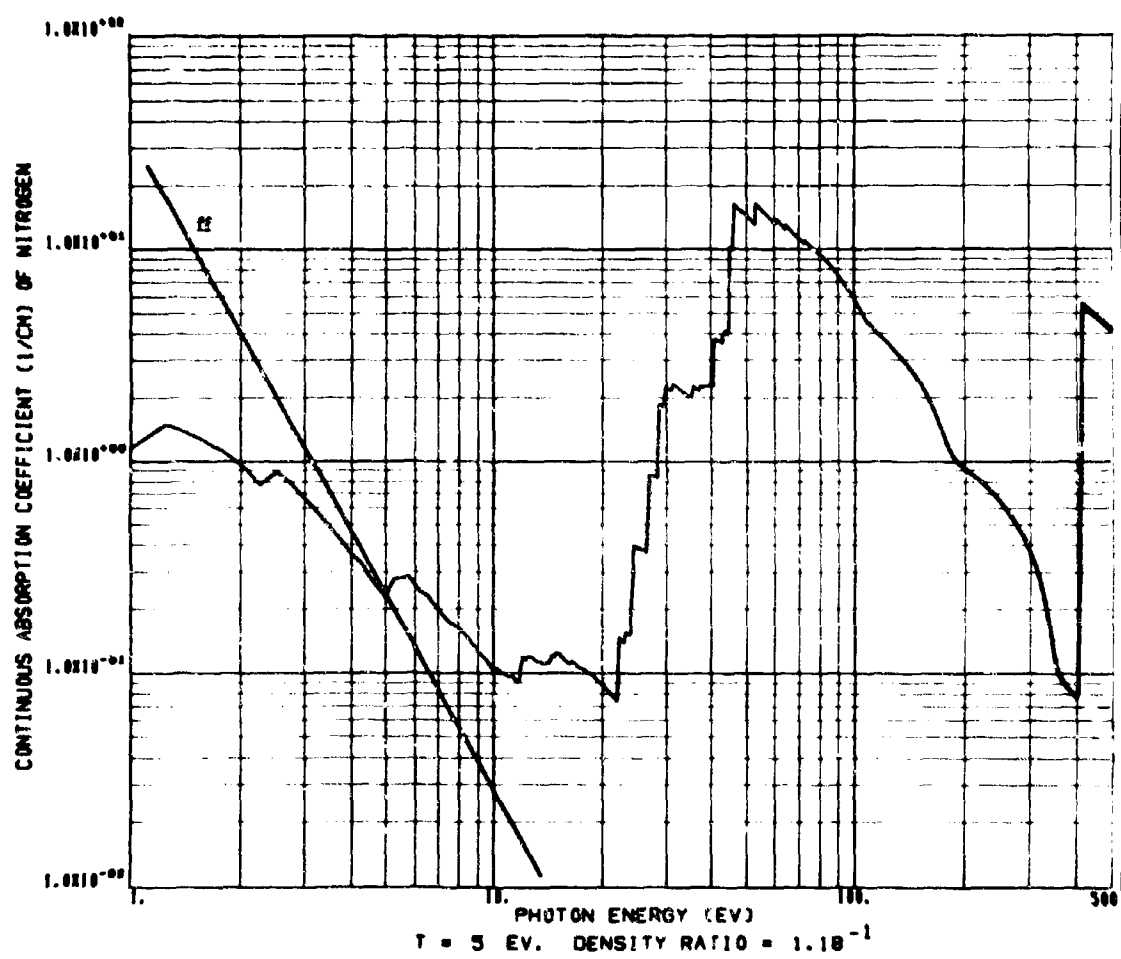


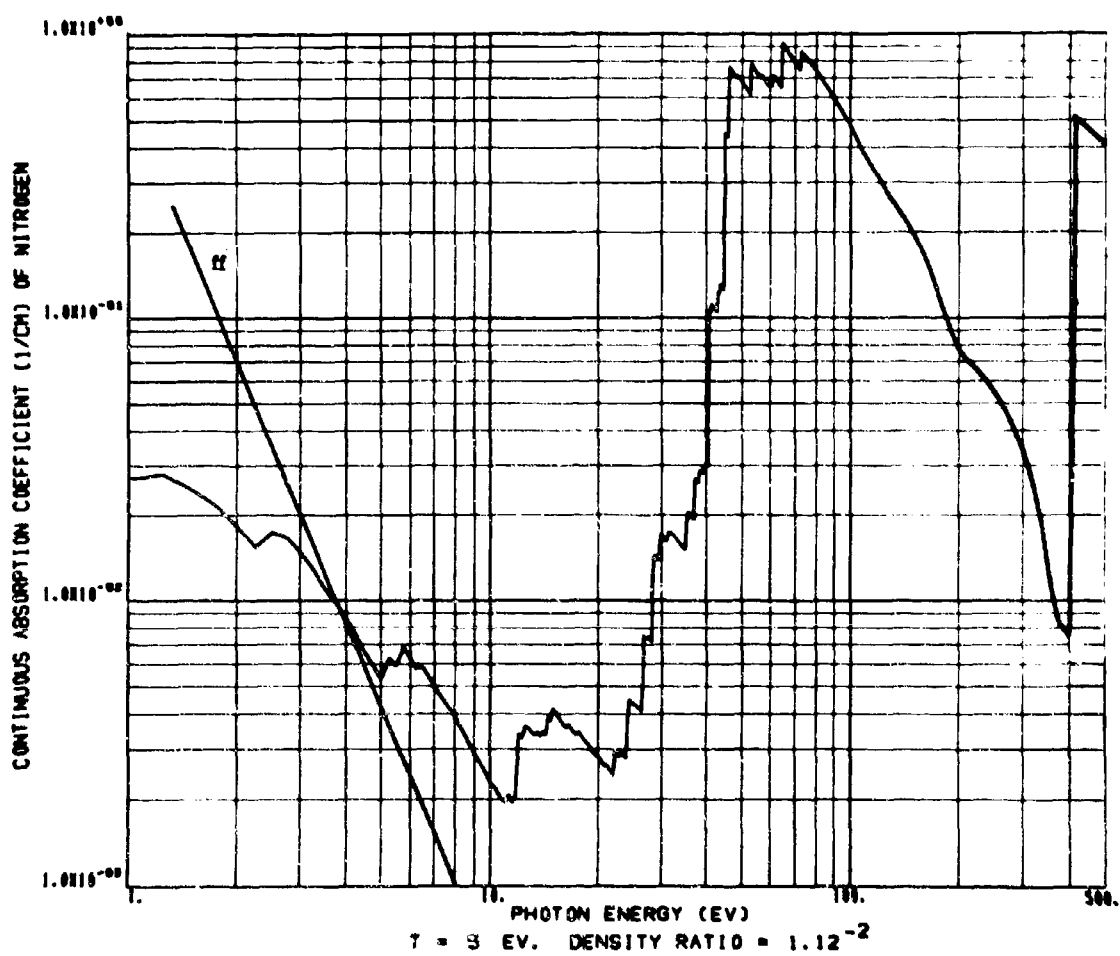


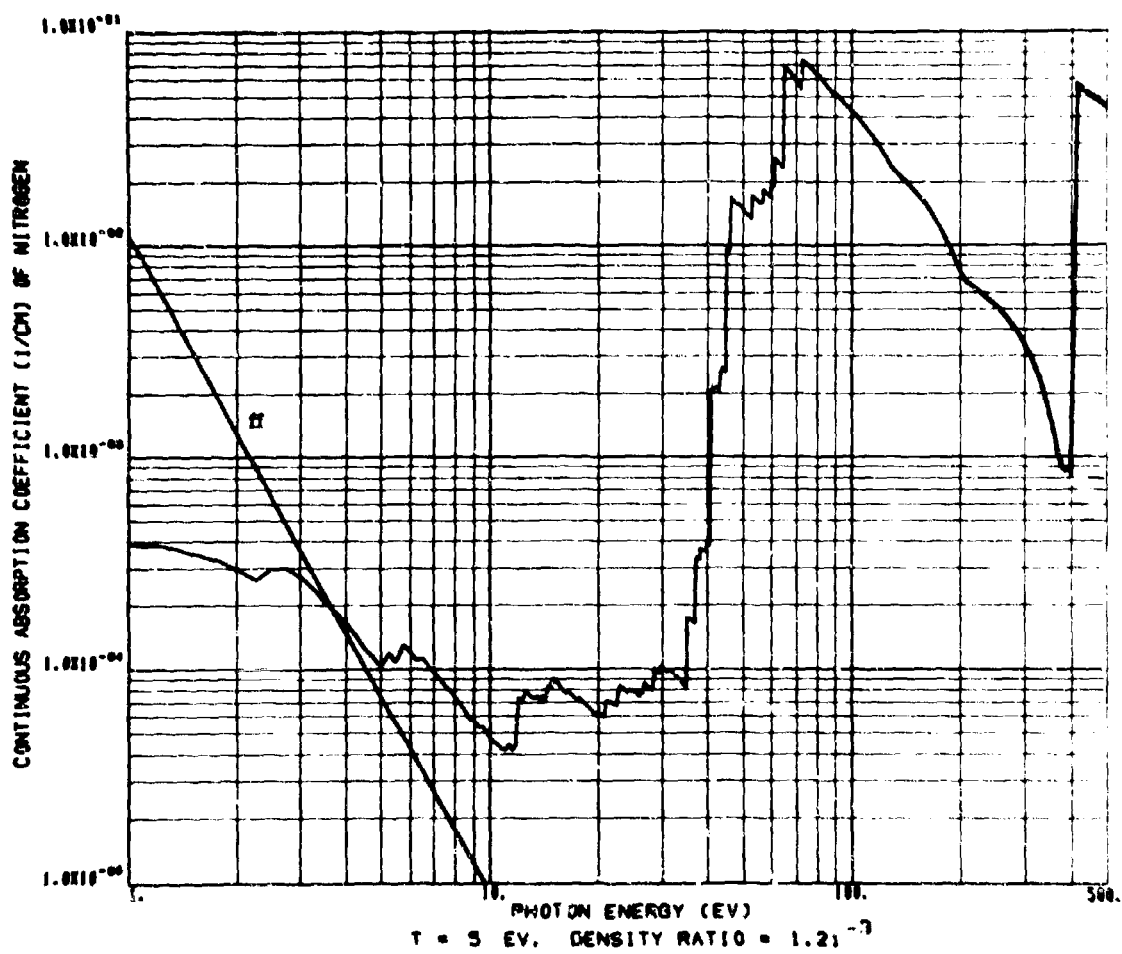


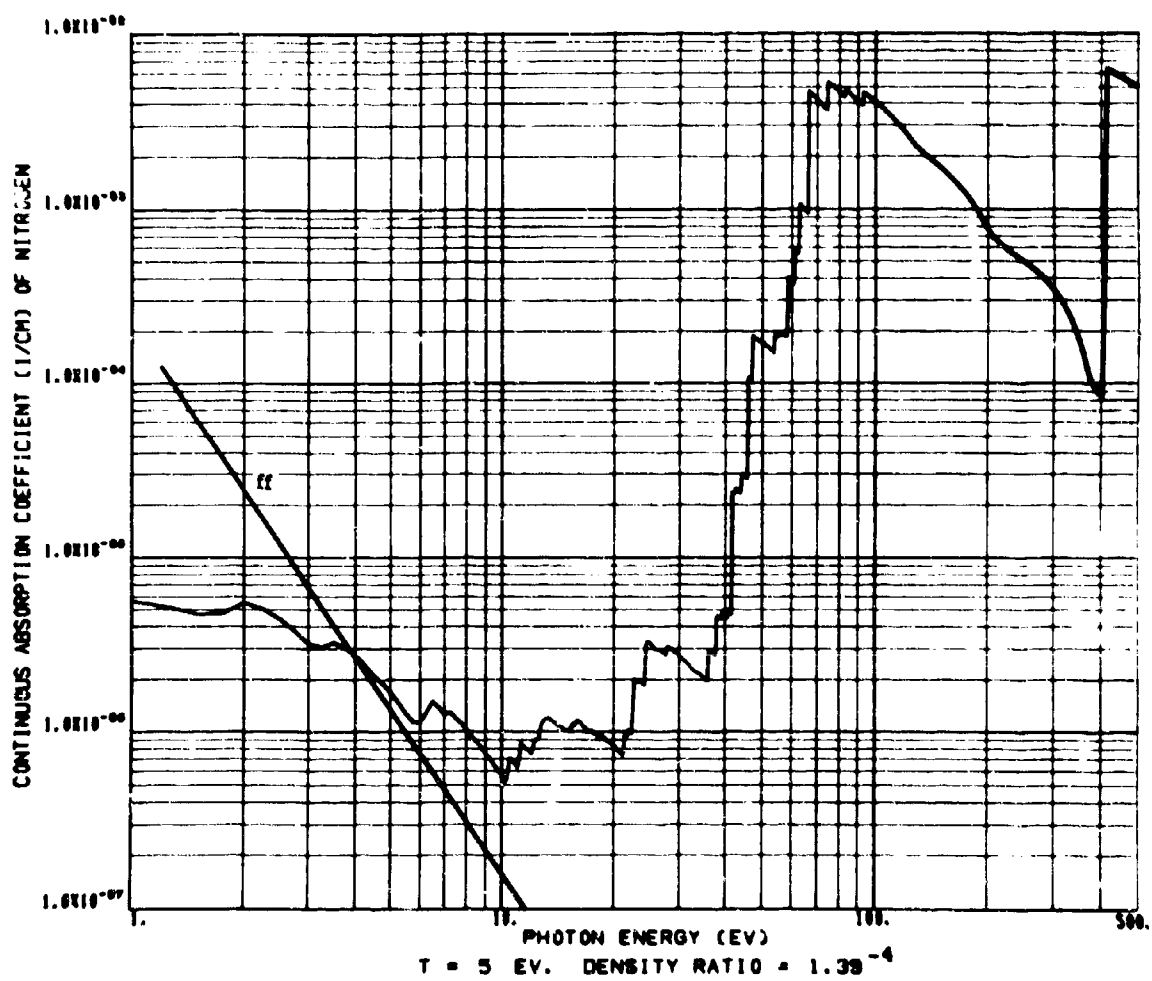


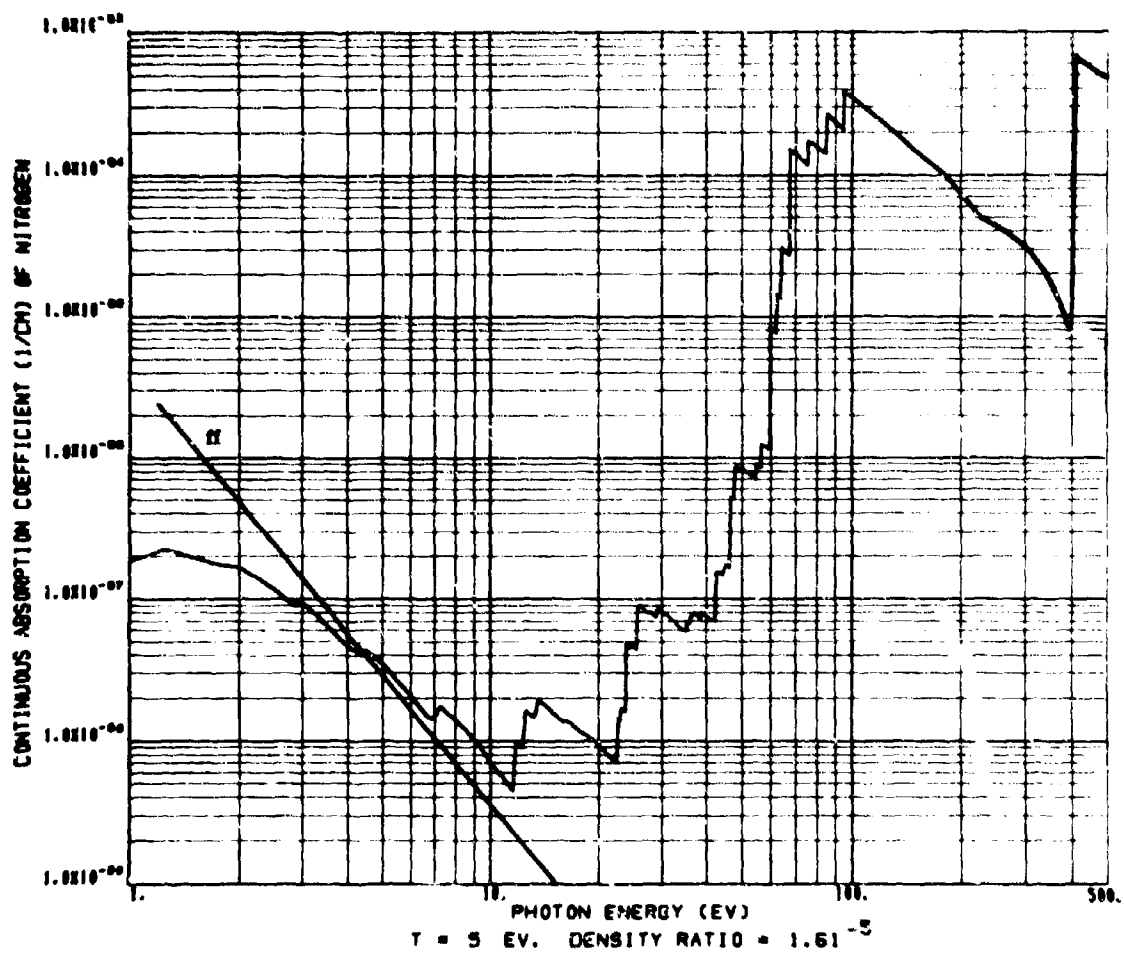


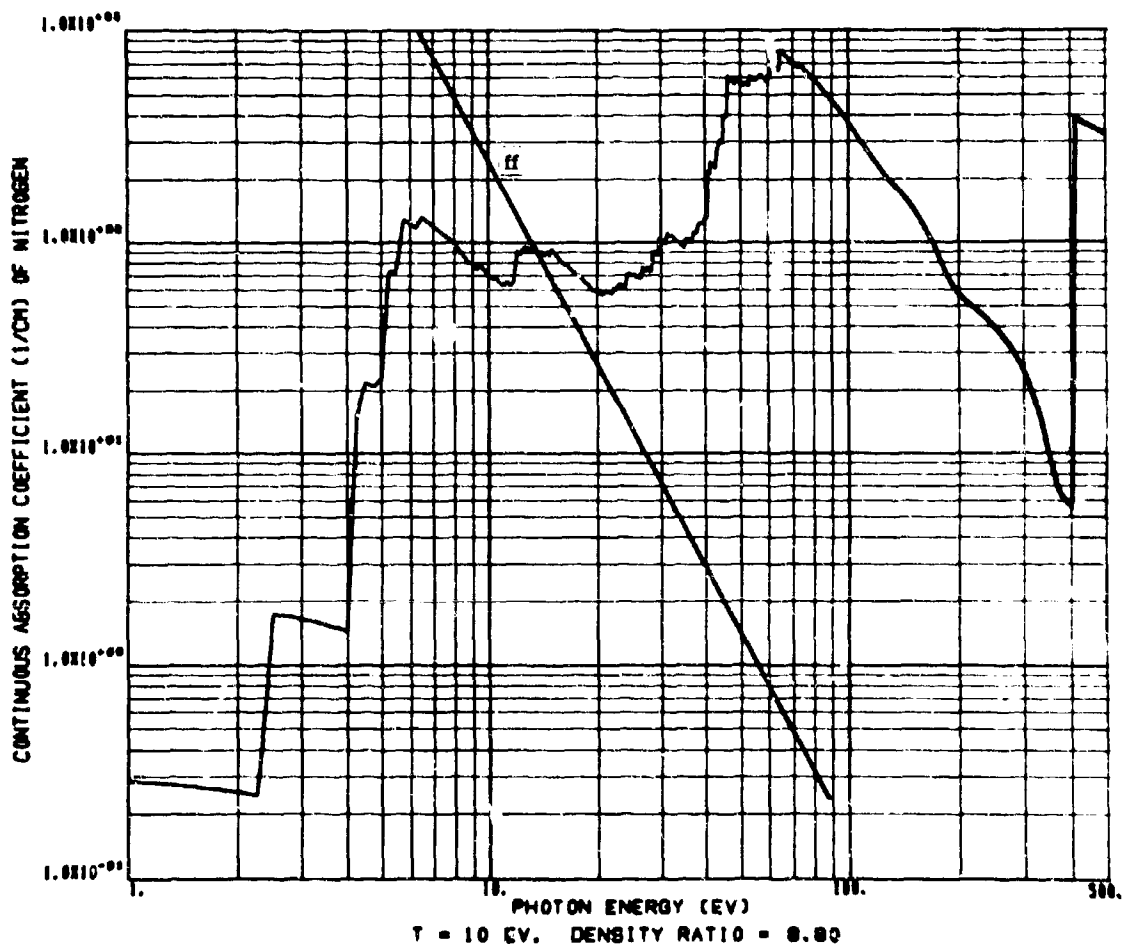


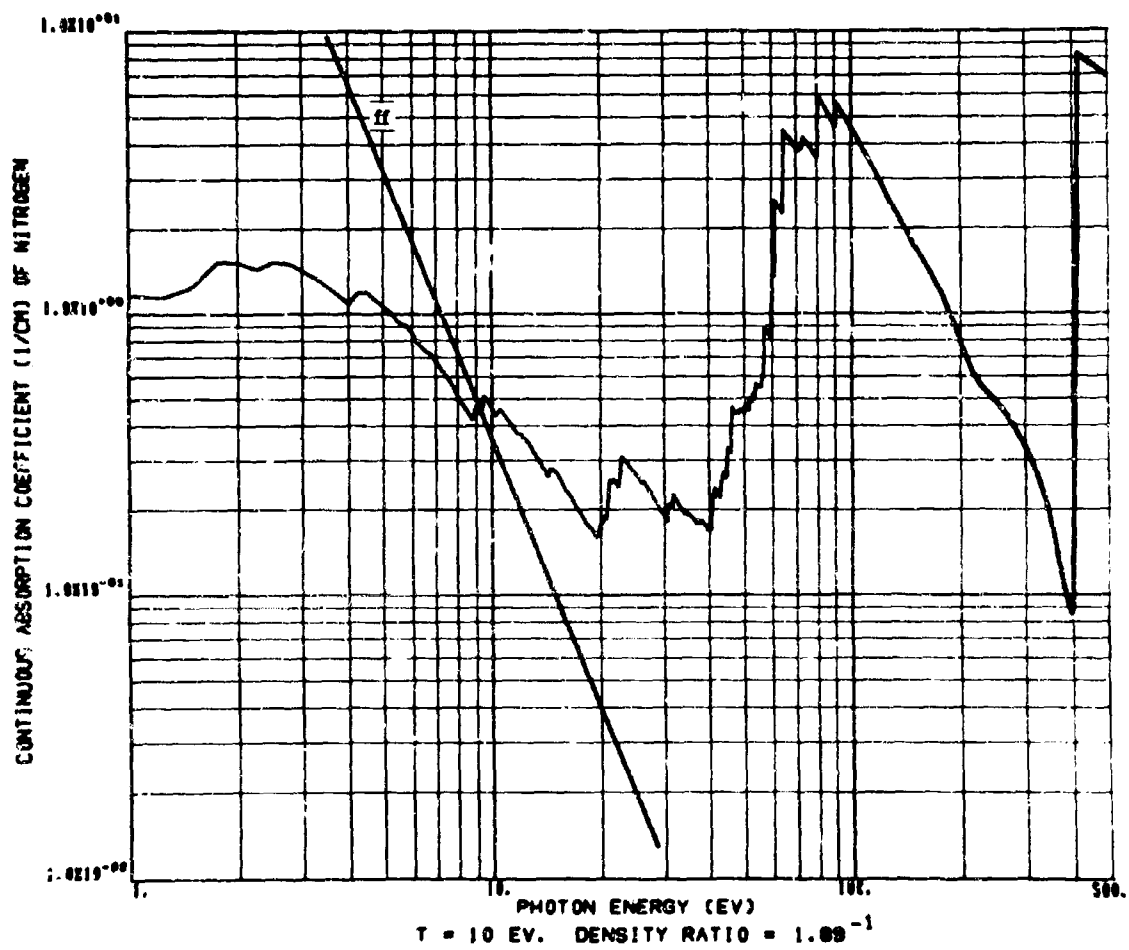


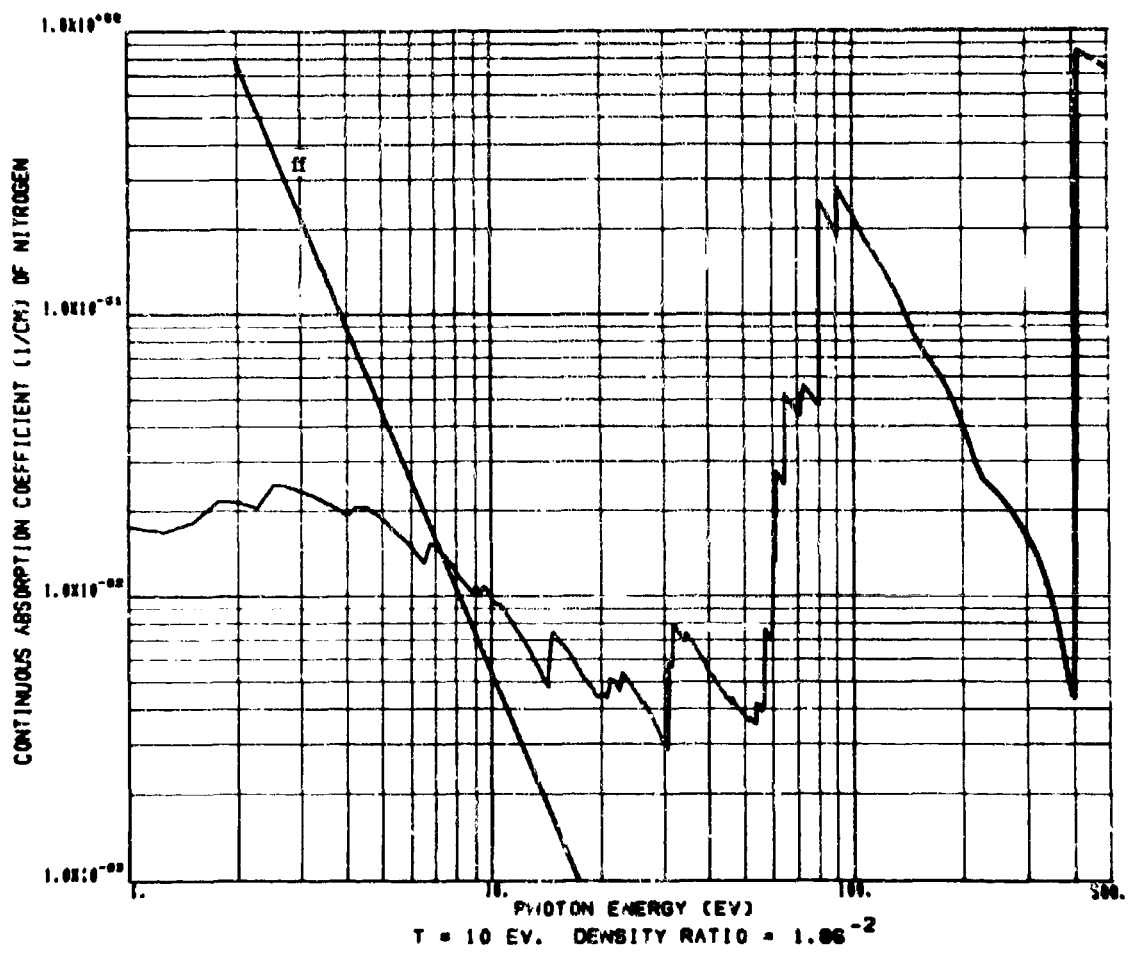


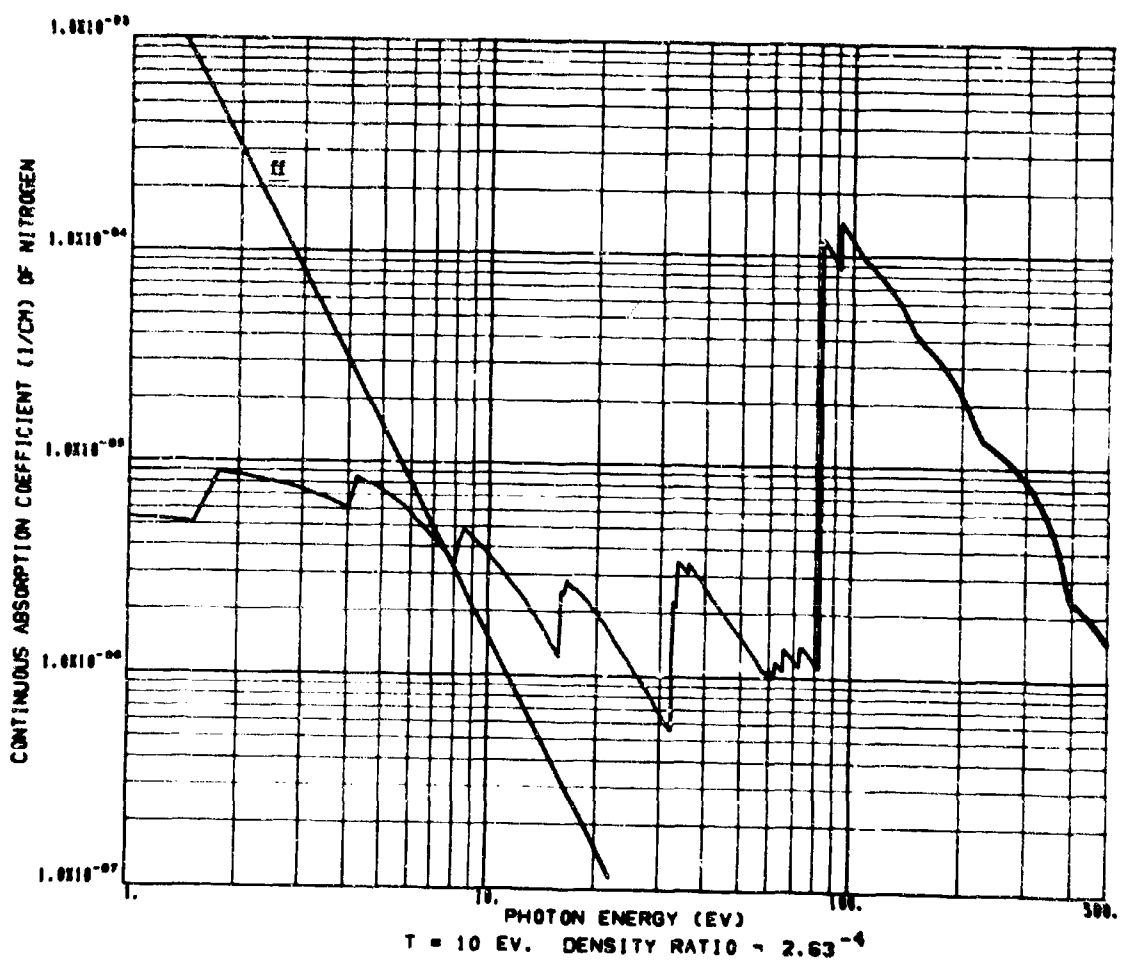


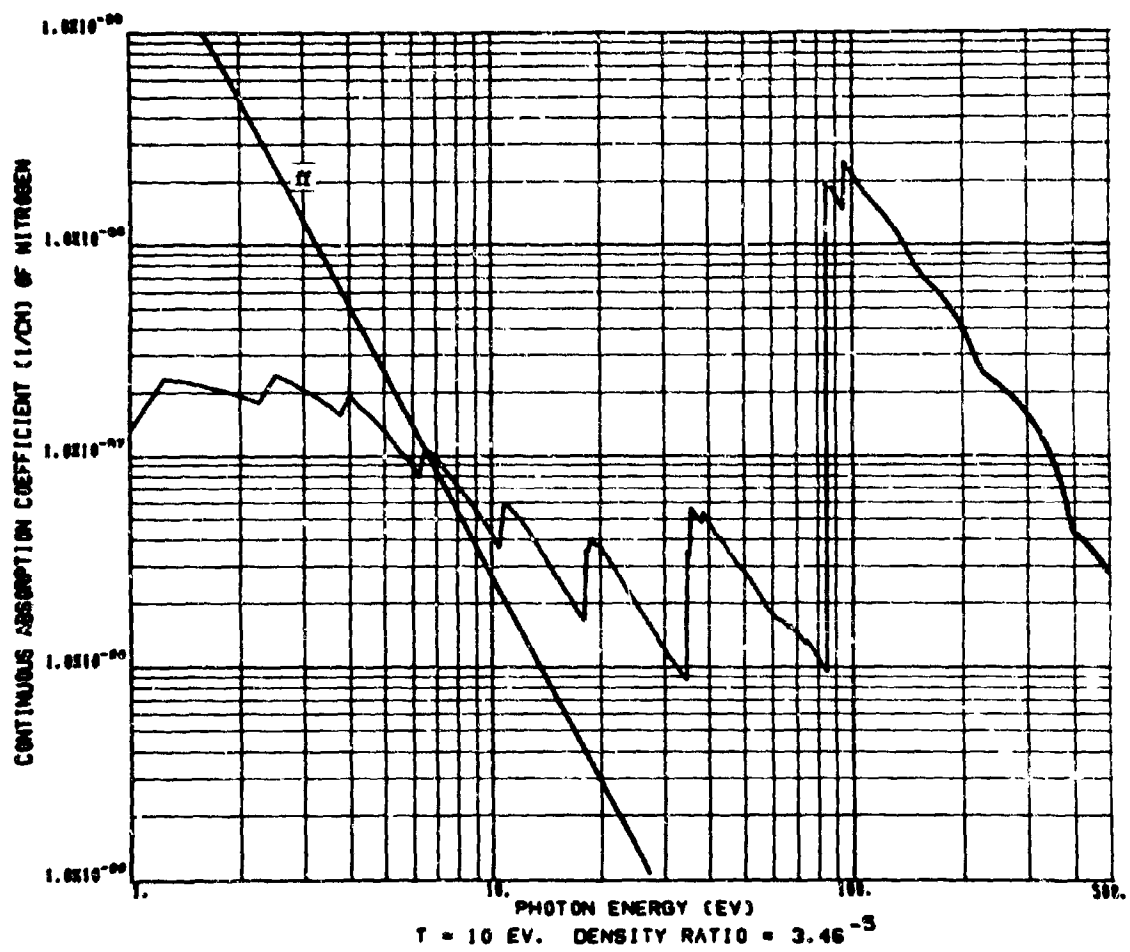


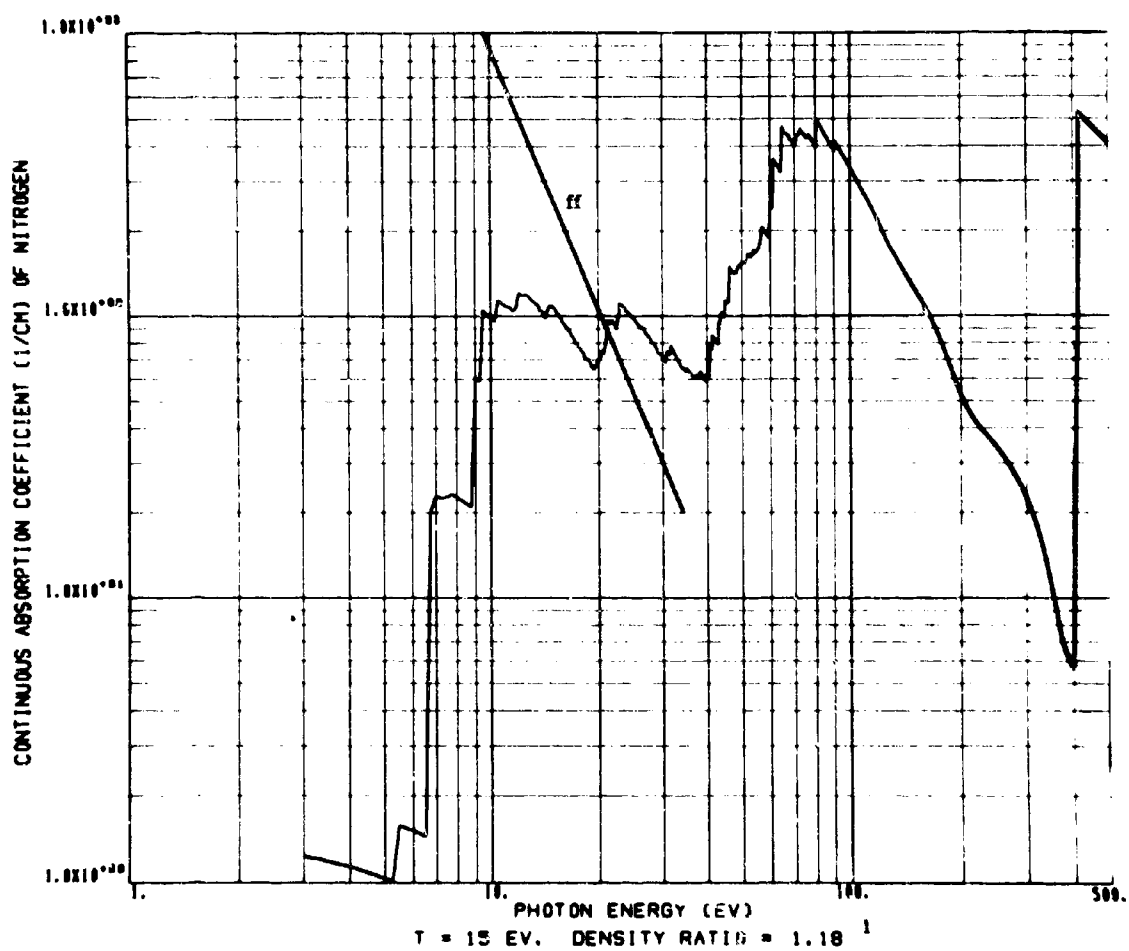


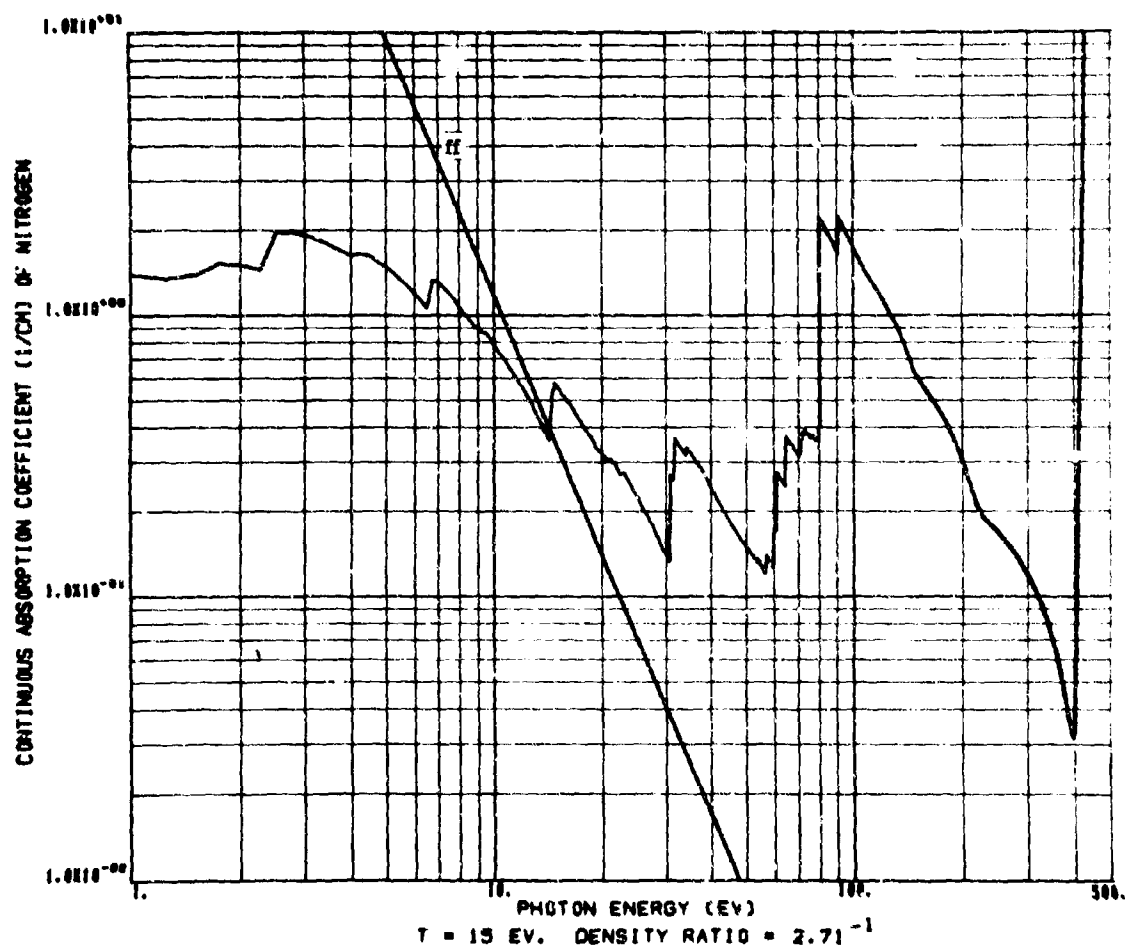


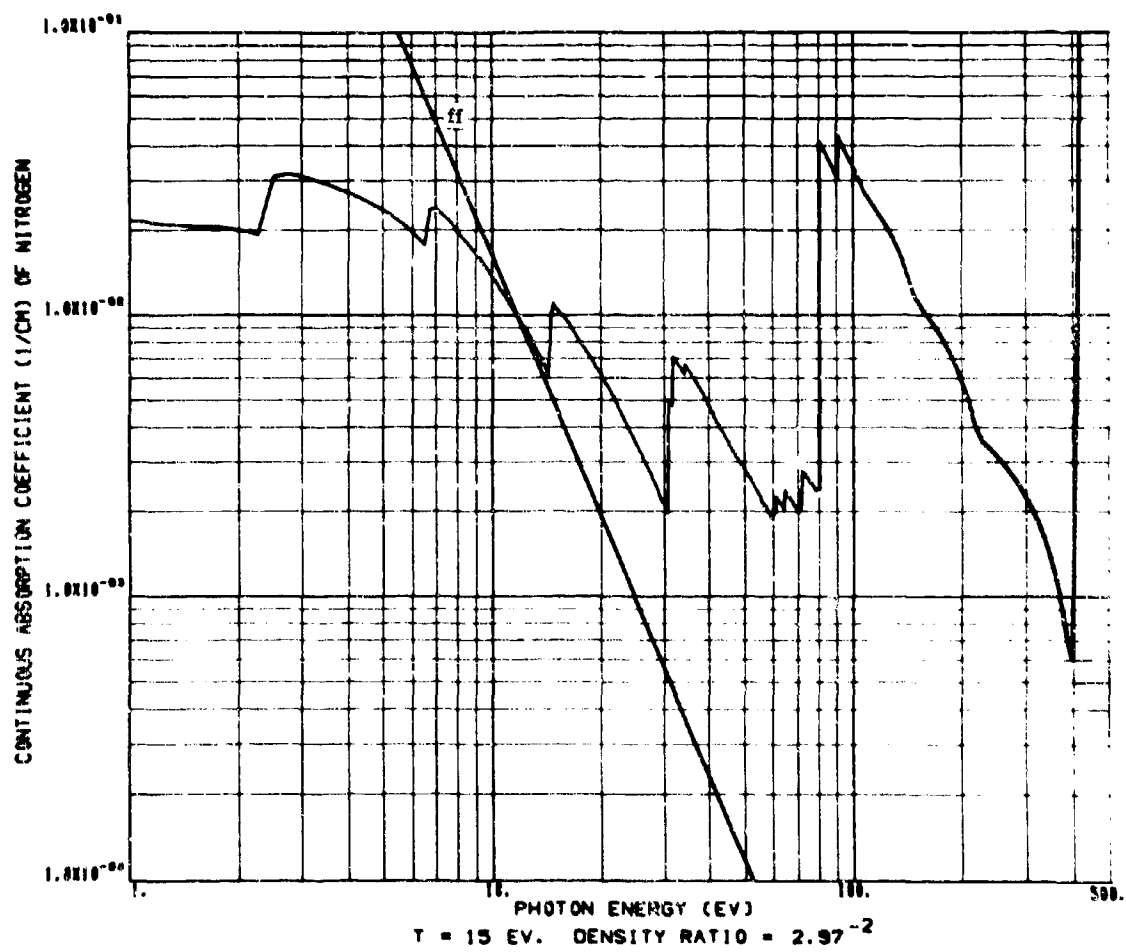


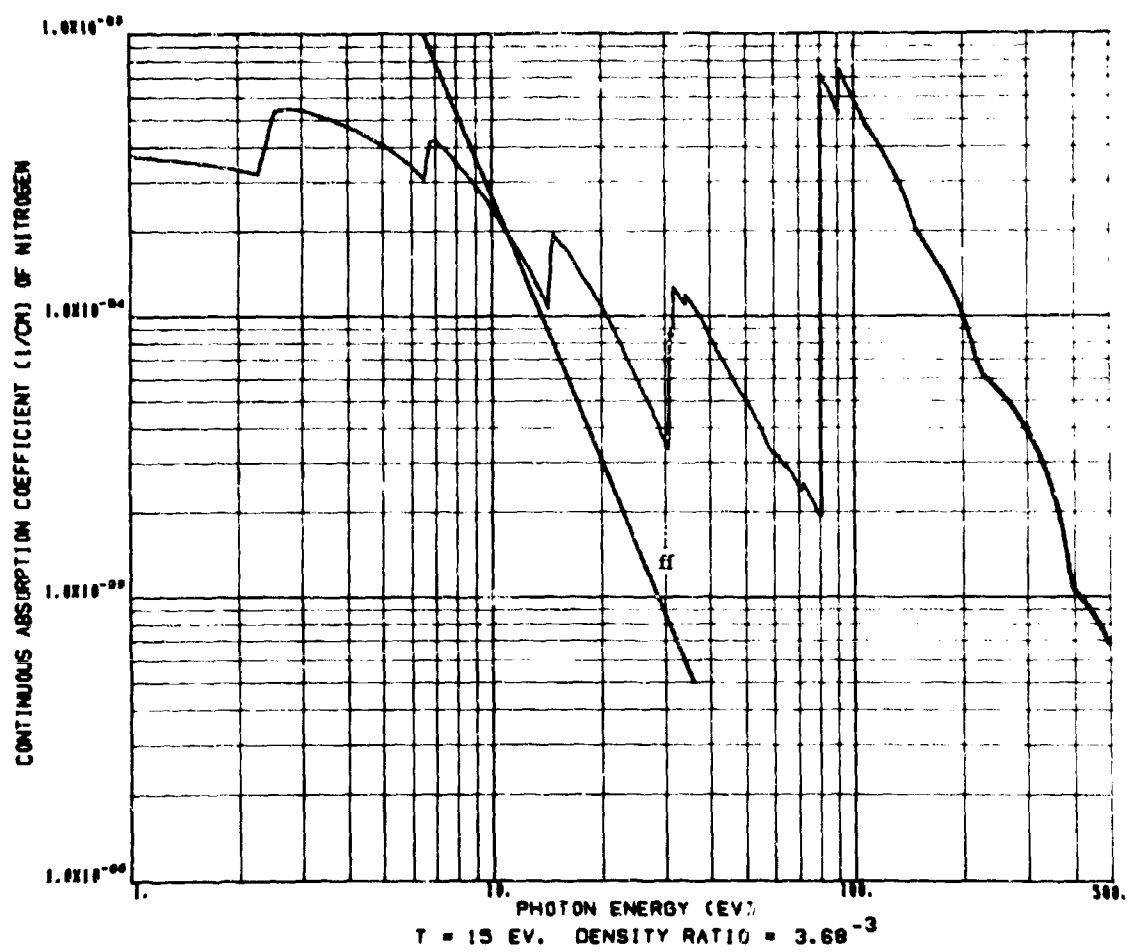


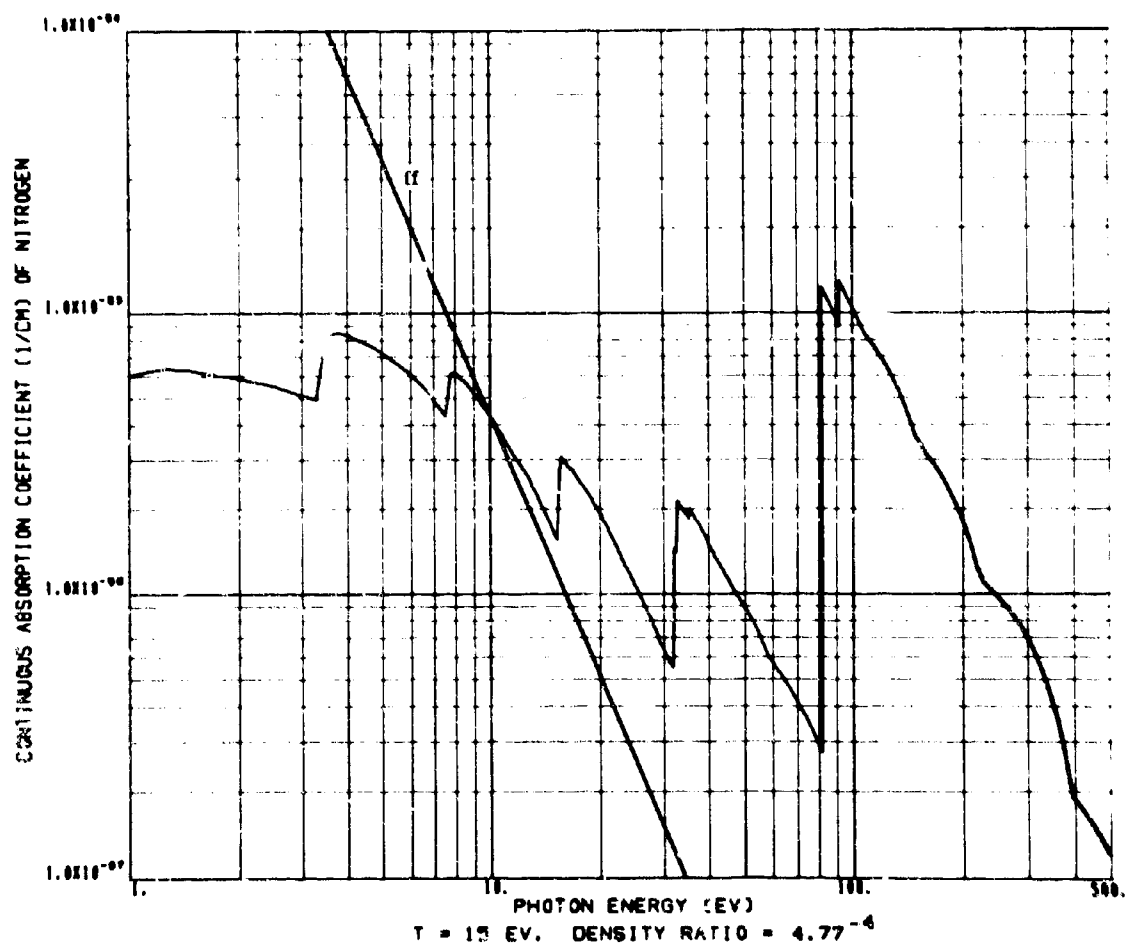


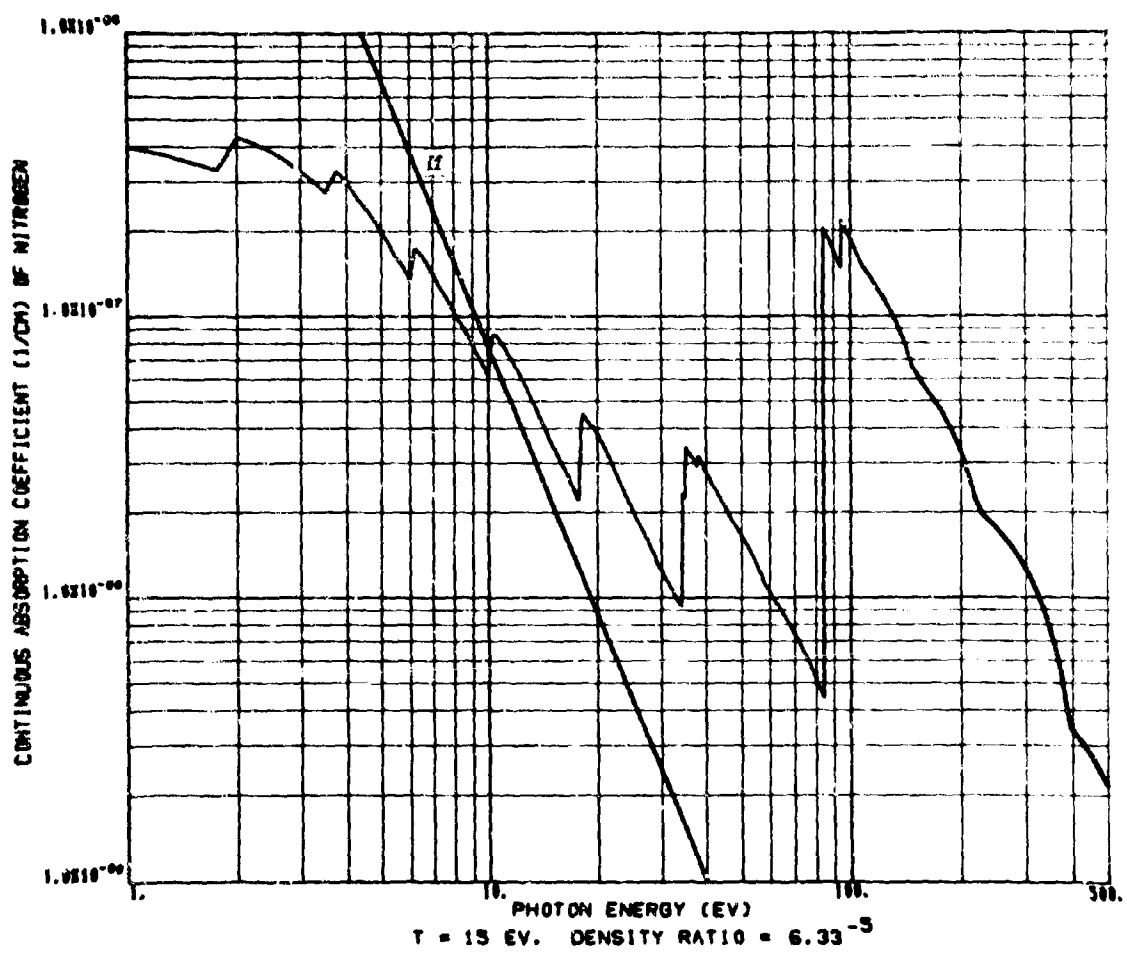


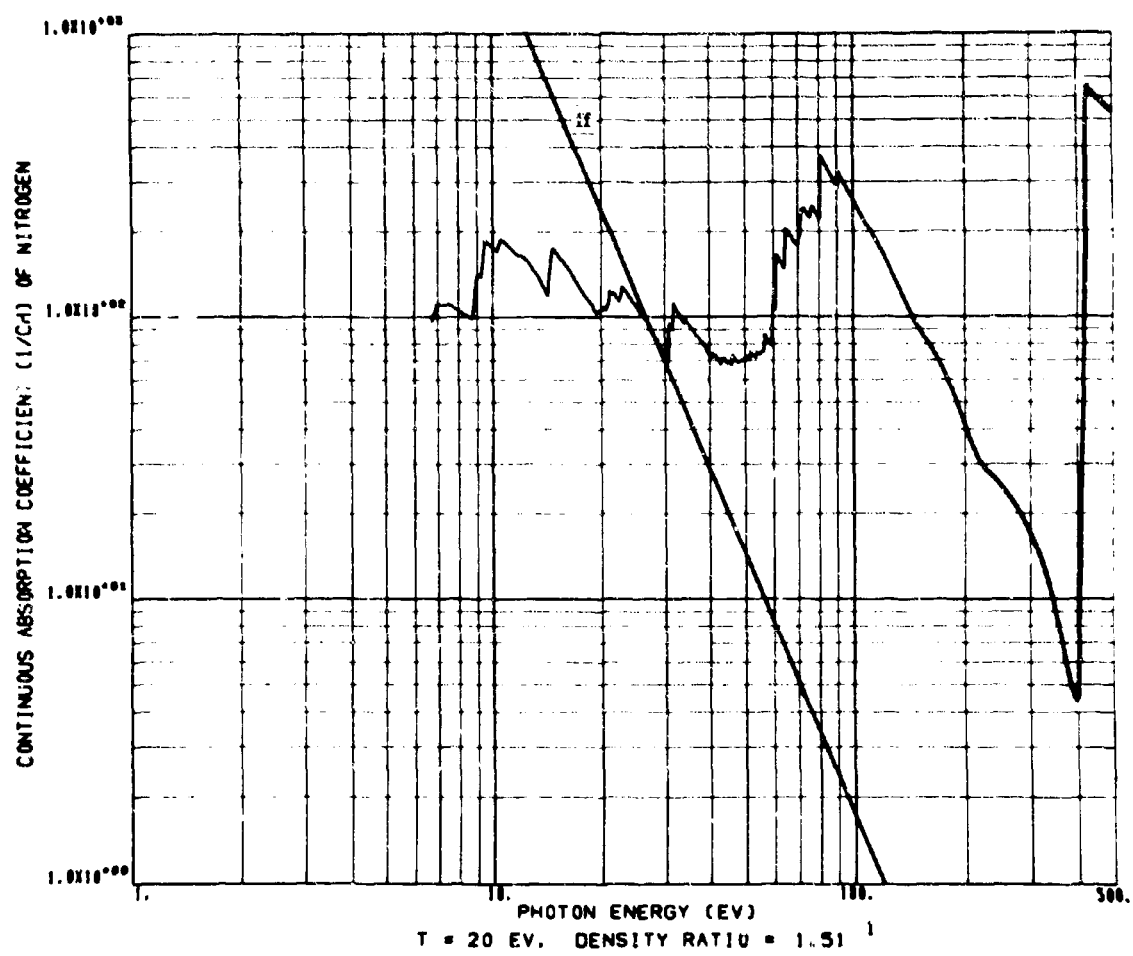


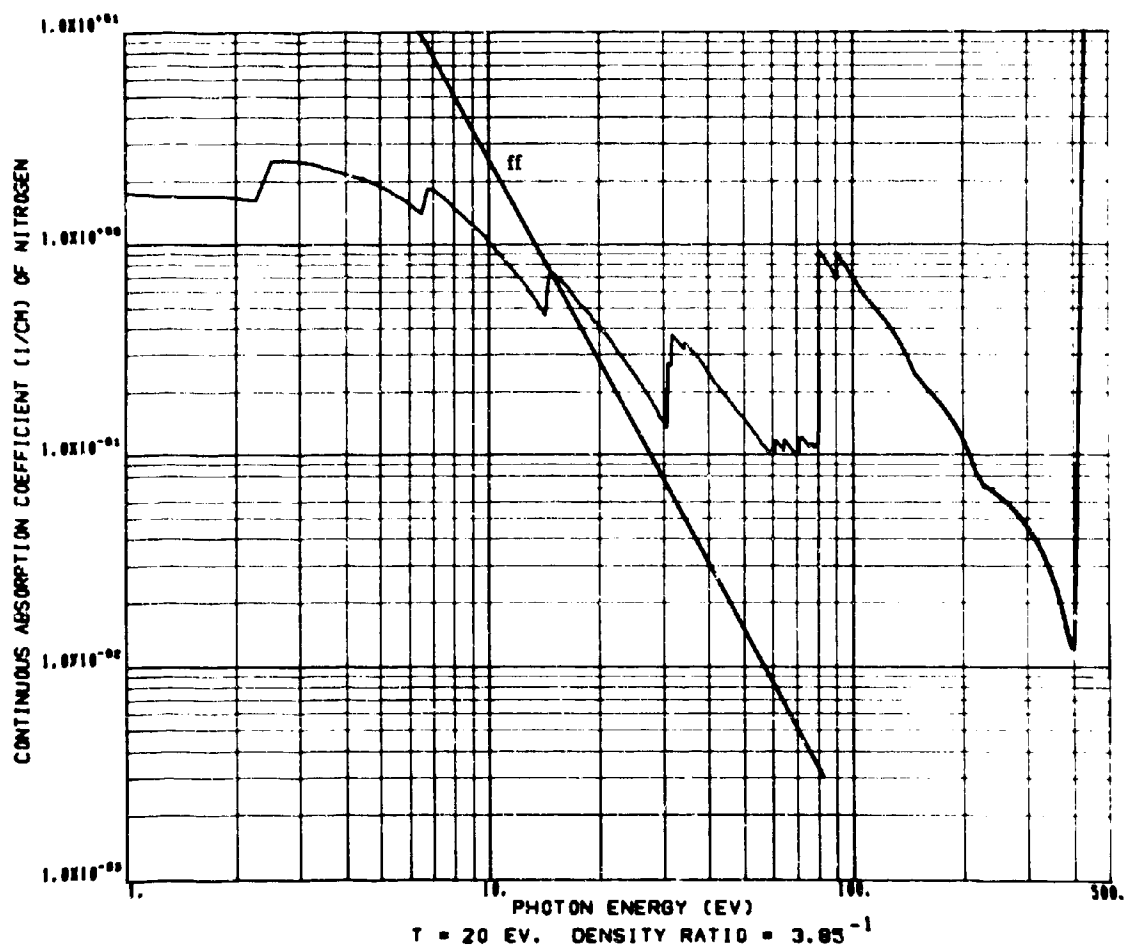


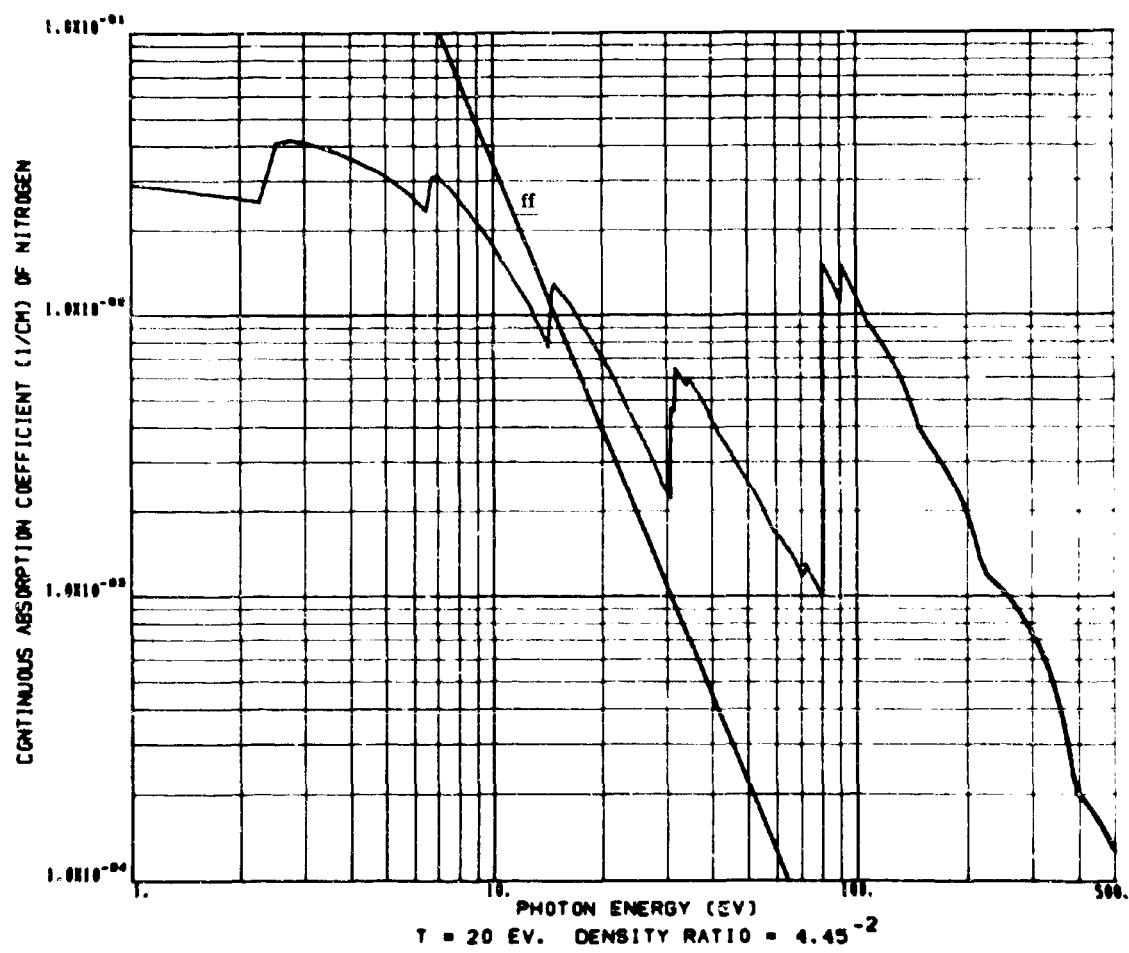


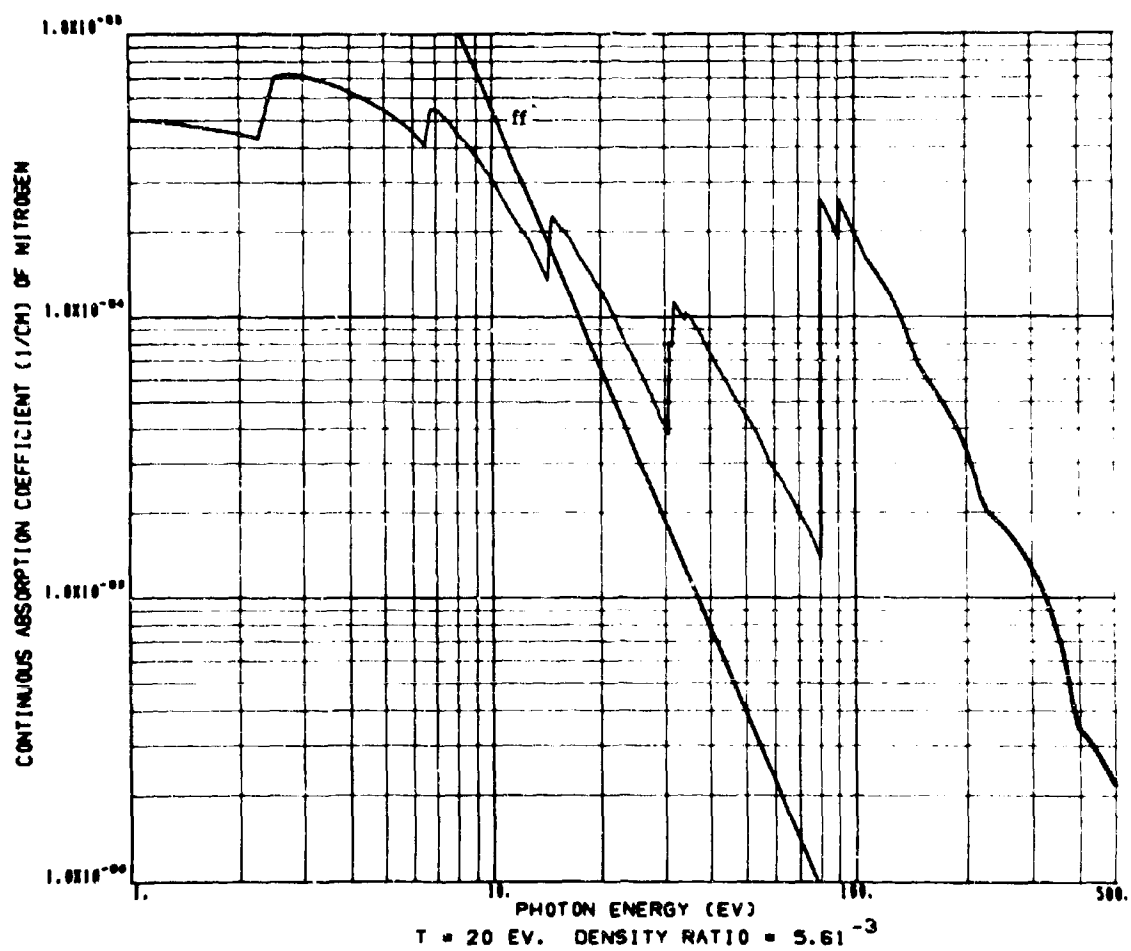


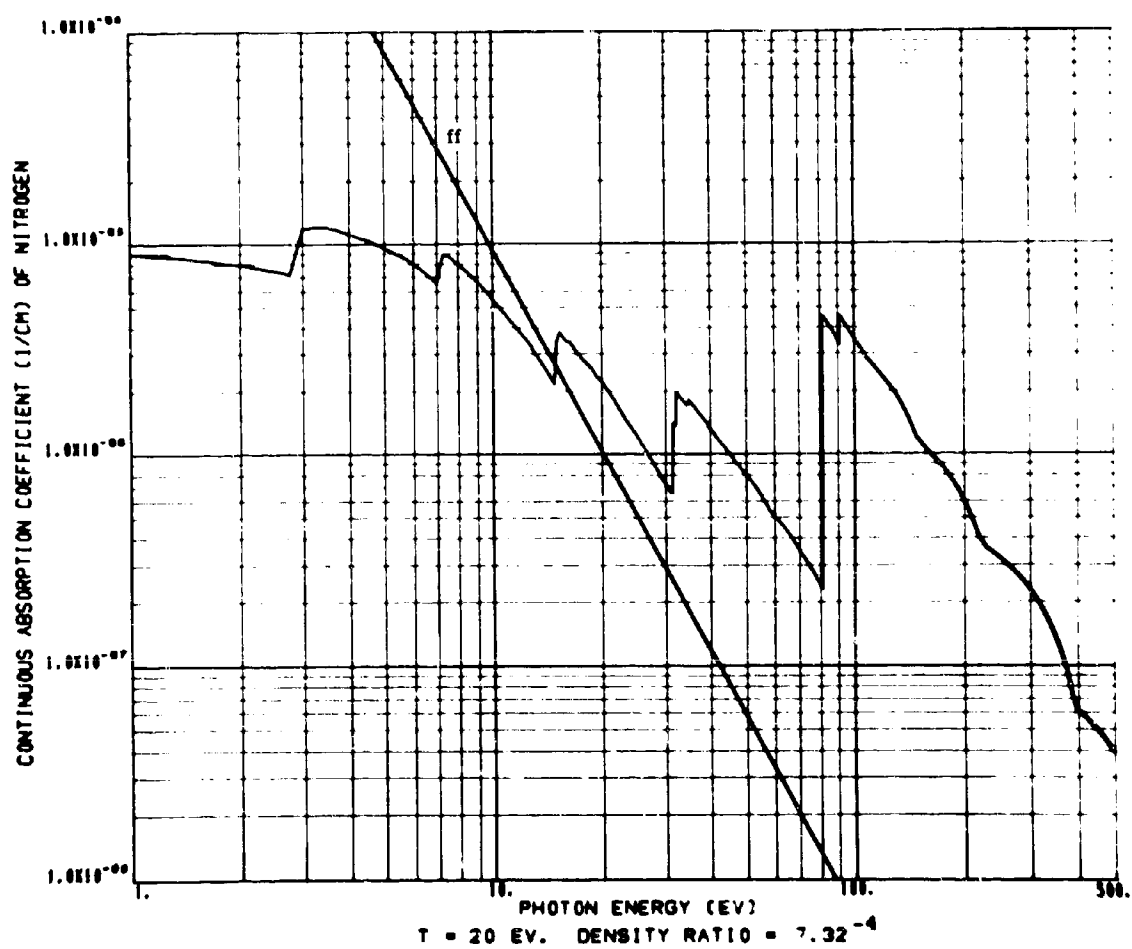


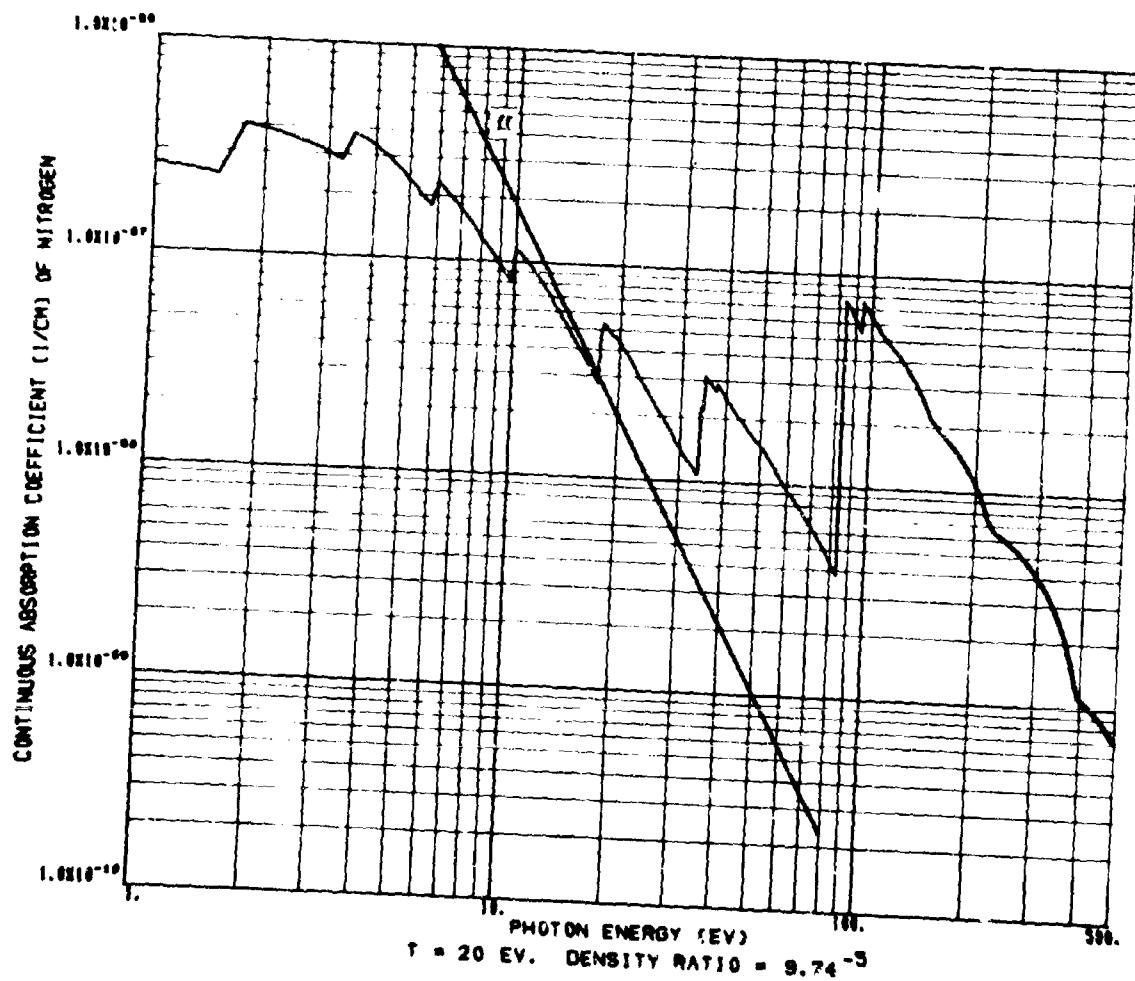












2. Mean Absorption Coefficients of Air

If conditions of local thermodynamic equilibrium prevail, the source function I_v in the transfer equation

$$-\frac{1}{\mu_v} \frac{dI_v}{ds} = I_v - J_v$$

becomes the well-known Planck function

$$B_v(T) = \frac{2hv^3}{c^2} (e^{hv/kT} - 1)^{-1}$$

plus a term that accounts for induced emission. There are then two limiting cases for which simple solutions to the transfer equation exist. If the optical depth $\mu'_v x$ of the radiating sample of gas is small ($\mu_v x \ll 1$), where x is the sample dimension in the direction of radiation, the radiant energy emitted by the sample is given in terms of the Planck mean absorption coefficient:

$$\bar{\mu}_P = \frac{\int \mu'_v B_v(T) dv}{\int B_v(T) dv}$$

where $\mu'_v = [1 - \exp(hv/kT)] \mu_v$. If the optical depth is large ($\mu_v x \gg 1$), one passes to the diffusion limit, and the emission of radiant energy is governed by the Rosseland mean absorption coefficient:

$$\frac{1}{\bar{\mu}_R} = \frac{\int \frac{1}{\mu'_v} \frac{\partial B_v(T)}{\partial T} dv}{\int \frac{\partial B_v(T)}{\partial T} dv}$$

Table 1 lists values of $\bar{\mu}_p$ as obtained from the work of Armstrong, Johnston, and Kelly (1965), for nitrogen and oxygen. The continuum (i.e., photoelectric and free-free) contributions and line (bound-bound) contributions are displayed separately, and given for six density values (from, roughly, 10 normal to 10^{-5} normal) at each of the six temperatures 1, 2, 5, 10, 15, and 20 eV. Non-hydrogenic matrix elements were employed in this calculation for all but the free-free contributions.

Table 2 presents a comparison of the non-hydrogenic continuum Planck mean coefficients of Armstrong, Johnston, and Kelly (1965) with the earlier hydrogenic calculations of Armstrong (1959), and of Stewart and Pyatt (1961). The listed coefficients are for nitrogen and oxygen. The six density points for each temperature are the same as those in Table 1, and a comparison is given for temperatures $kT = 2, 5, 10, 15, \text{ and } 20 \text{ eV}$.

Table 3 presents Rosseland mean absorption coefficients of nitrogen, oxygen, and air as obtained from the work of Armstrong, Johnston, and Kelly (1965), along with some hydrogenic Rosseland mean results of Stewart and Pyatt (1961) for comparison. The temperature-density grid is identical to that of Table A.

The foregoing definitions and results are discussed in detail by Armstrong and Nicholls (1966), Parts A and B.

References

- Armstrong, B.H., Mean Absorption Coefficients of Air, Nitrogen and Oxygen from 22,000° to 220,000°, Lockheed Missiles and Space Company Report LMSC 49759, 1959.
- Armstrong, B.H., R.R. Johnston and P.S. Kelly, Opacity of High-Temperature Air, Air Force Weapons Laboratory Report, TR 65-17, 1965.
- Armstrong, B.H. and R. Nicholls, The Radiative Properties of Heated Air, Thermal Radiation Phenomena, Lockheed, Palo Alto, 1966.
- Stewart, J.C. and K.D. Pyatt, Jr., Theoretical Studies of Optical Properties, Air Force Special Weapons Center Report, AFSWC-TR-61-71, 1961.

Table 1

PLANCK MEAN ABSORPTION COEFFICIENTS FOR NITROGEN AND OXYGEN

Temperature (eV)	J	Nitrogen Ion Density (nuclei cm ⁻³)	Mean Absorption Coefficients (cm ⁻¹)			Oxygen Ion Density (nuclei cm ⁻³)	Mean Absorption Coefficients (cm ⁻¹)		
			Lines	Continuum	Total		Lines	Continuum	Total
1	1	5.26 ¹⁸	1.70	3.48 ²	1.74	5.38 ¹⁶	5.20 ¹	2.04 ²	5.40 ¹
	2	5.36 ¹⁷	1.68 ⁻¹	3.40 ⁻³	1.71 ⁻¹	5.39 ¹⁷	4.67 ⁻²	1.82 ⁻³	4.65 ⁻²
	3	5.37 ¹⁶	1.51 ⁻²	2.84 ⁻⁴	1.54 ⁻²	5.37 ¹⁶	4.22 ⁻³	1.60 ⁻⁴	4.38 ⁻³
	4	5.38 ¹⁵	1.10 ⁻³	1.71 ⁻⁵	1.12 ⁻³	5.38 ¹⁵	3.09 ⁻⁴	1.13 ⁻⁵	3.20 ⁻⁴
	5	5.38 ¹⁴	5.89 ⁻⁵	5.27 ⁻⁷	5.94 ⁻⁵	5.38 ¹⁴	1.37 ⁻⁵	3.53 ⁻⁷	1.41 ⁻⁵
	6	5.38 ¹³	3.90 ⁻⁶	6.61 ⁻⁹	3.91 ⁻⁶	5.38 ¹³	5.41 ⁻⁷	5.51 ⁻⁹	5.47 ⁻⁷
2	1	2.34 ²⁰	8.04 ²	1.61 ²	9.65 ²	3.32 ²⁰	5.16 ²	1.61 ²	6.77 ²
	2	3.16 ¹⁸	6.61	4.01 ¹	7.01	3.77 ¹⁸	3.21	4.19 ¹	3.63
	3	3.32 ¹⁷	6.06 ⁻¹	7.20 ⁻³	6.13 ⁻¹	3.85 ¹⁷	2.67 ⁻¹	6.97 ⁻³	2.74 ⁻¹
	4	3.86 ¹⁶	6.75 ⁻²	1.92 ⁻⁴	6.77 ⁻²	4.68 ¹⁶	3.09 ⁻²	1.31 ⁻⁴	3.10 ⁻²
	5	3.90 ¹⁵	6.16 ⁻³	6.21 ⁻⁶	6.19 ⁻³	5.59 ¹⁵	3.57 ⁻³	3.23 ⁻⁶	3.57 ⁻³
	6	3.97 ¹⁴	1.41 ⁻⁴	1.43 ⁻⁷	5.41 ⁻⁴	5.59 ¹⁴	3.26 ⁻⁴	9.71 ⁻⁶	3.20 ⁻⁴
5	1	2.56 ²⁰	1.20 ³	2.32 ²	1.43 ³	3.02 ²⁰	1.05 ³	2.01 ²	1.25 ³
	2	5.50 ¹⁸	1.99 ¹	7.97 ⁻¹	3.07 ¹	6.57 ¹⁸	1.83 ¹	6.73 ⁻¹	1.90 ¹
	3	5.24 ¹⁷	1.50	2.11 ⁻²	1.52	6.45 ¹⁷	1.61	1.98 ⁻²	1.63
	4	5.65 ¹⁶	1.28 ⁻¹	4.75 ⁻⁴	1.29 ⁻¹	6.76 ¹⁶	1.50 ⁻¹	5.16 ⁻⁴	1.51 ⁻¹
	5	6.49 ¹⁵	1.09 ⁻²	8.99 ⁻⁶	1.09 ⁻²	7.97 ¹⁵	1.67 ⁻²	9.64 ⁻⁶	1.67 ⁻²
	6	7.50 ¹⁴	7.02 ⁻⁴	1.64 ⁻⁷	7.02 ⁻⁴	9.25 ¹⁴	1.80 ⁻³	1.98 ⁻⁷	1.80 ⁻³
10	1	4.11 ²⁰	9.14 ²	2.87 ²	12.01 ²	4.76 ²⁰	1.13 ¹	3.11 ²	1.47 ³
	2	8.81 ¹⁸	0.99 ¹	8.15 ¹	1.07 ¹	1.04 ¹⁹	1.63 ¹	1.07	1.74 ¹
	3	8.71 ¹⁷	4.31 ⁻¹	1.72 ⁻²	4.48 ⁻¹	1.03 ¹⁸	9.78 ⁻¹	2.50 ⁻²	1.00
	4	9.79 ¹⁶	1.18 ⁻²	3.40 ⁻⁴	1.19 ⁻²	1.11 ¹⁷	5.08 ⁻²	5.81 ⁻⁴	5.14 ⁻²
	5	1.23 ¹⁶	2.25 ⁻⁴	5.36 ⁻⁵	2.30 ⁻⁴	1.29 ¹⁶	2.36 ⁻³	1.05 ⁻⁵	2.37 ⁻³
	6	1.62 ¹⁵	4.09 ⁻⁶	8.02 ⁻⁸	4.17 ⁻⁶	1.56 ¹⁵	6.63 ⁻⁵	1.65 ⁻⁷	6.65 ⁻⁵
15	1	5.53 ²⁰	6.05 ²	2.42 ²	8.47 ²	6.49 ²⁰	9.62 ²	3.33 ²	1.30 ³
	2	1.27 ¹⁹	3.72	5.54 ¹	4.27	1.42 ¹⁹	1.07 ¹	9.61 ¹	1.17 ¹
	3	1.39 ¹⁸	7.51 ²	9.38 ³	8.45 ²	1.44 ¹⁸	4.20 ¹	1.95 ²	4.40 ¹
	4	1.72 ¹⁷	1.34 ⁻³	1.60 ⁻⁴	1.50 ⁻³	1.68 ¹⁷	9.95 ⁻³	3.65 ⁻⁴	1.03 ⁻²
	5	2.23 ¹⁶	2.42 ⁻⁵	2.68 ⁻⁶	2.69 ⁻⁵	2.14 ¹⁶	1.87 ⁻⁴	5.98 ⁻⁶	1.93 ⁻⁴
	6	2.96 ¹⁵	4.39 ⁻⁷	4.32 ⁻⁸	4.82 ⁻⁷	2.83 ¹⁵	3.41 ⁻⁶	8.89 ⁻⁸	3.50 ⁻⁶
20	1	7.07 ²⁰	3.42 ²	1.67 ²	5.29 ²	8.01 ²⁰	7.02 ²	3.04 ²	1.01 ³
	2	1.80 ¹⁹	1.21	3.58 ⁻¹	1.57	1.96 ¹⁹	5.45	7.10 ¹	6.16
	3	2.08 ¹⁸	2.12 ²	5.72 ⁻³	2.69 ⁻²	2.04 ¹⁸	1.21 ¹	1.23 ⁻²	1.33 ¹
	4	2.62 ¹⁷	3.71 ⁻⁴	9.78 ⁻⁵	4.69 ⁻⁴	2.52 ¹⁷	2.18 ⁻³	2.11 ⁻⁴	2.37 ⁻³
	5	3.42 ¹⁶	6.62 ⁻⁶	1.70 ⁻⁶	8.32 ⁻⁶	3.27 ¹⁶	3.86 ⁻⁵	3.62 ⁻⁶	4.22 ⁻⁵
	6	4.55 ¹⁵	1.23 ⁻⁷	2.82 ⁻⁸	1.51 ⁻⁷	4.34 ¹⁵	6.96 ⁻⁷	5.64 ⁻⁸	7.52 ⁻⁷

Table 2
CONTINUUM PLANCK MEAN ABSORPTION COEFFICIENTS
FOR NITROGEN AND OXYGEN

Temperature (eV)	J	Mean Absorption Coefficients (cm ⁻¹)				
		Nitrogen			Oxygen	
		Present Calculation	Ref. 1	Ref. 2	Present Calculation	Ref. 1
2	1	1.61 ²	1.28 ²		1.61 ²	1.08 ²
	2	4.01 ¹	3.00 ¹		1.19 ¹	2.81 ¹
	3	7.20 ³	4.99 ³		6.97 ³	4.60 ³
	4	1.92 ⁴	1.05 ⁴		1.31 ⁴	8.11 ⁵
	5	6.21 ⁶	2.98 ⁶		3.23 ⁶	1.82 ⁶
	6	1.43 ⁷	7.08 ⁸		9.71 ⁸	5.82 ⁸
5	1	2.32 ²	1.70 ²	1.1 ²	2.01 ²	1.52 ²
	2	7.97 ¹	3.87 ¹	3.5 ¹	6.73 ¹	5.03 ¹
	3	2.11 ²	8.58 ³	8.4 ³	1.98 ²	7.61 ³
	4	1.75 ⁴	1.69 ⁴	1.9 ⁴	5.16 ⁴	1.68 ⁴
	5	8.99 ⁶	3.85 ⁶	4.1 ⁶	9.61 ⁶	3.50 ⁶
	6	1.64 ⁷	8.99 ⁸	9.1 ⁸	1.96 ⁷	8.42 ⁸
10	1	2.87 ²	2.12 ²	1.3 ²	3.11 ²	2.11 ²
	2	8.15 ¹	4.63 ¹	3.8 ¹	1.07	1.66 ¹
	3	1.72 ²	9.13 ³	9.0 ³	2.50 ²	9.77 ³
	4	3.40 ⁴	1.79 ⁴	1.9 ⁴	5.81 ¹	2.02 ⁴
	5	5.36 ⁶	3.25 ⁶	3.4 ⁶	1.08 ⁵	3.78 ⁶
	6	8.02 ⁸	5.81 ⁸	6.0 ⁸	1.65 ⁷	7.11 ⁸
15	1	2.42 ²	2.11 ²	1.2 ²	3.33 ²	2.28 ²
	2	5.54 ¹	3.84 ¹	3.2 ¹	9.61 ¹	4.68 ¹
	3	9.38 ³	6.50 ³	6.2 ³	1.95 ²	8.59 ³
	4	1.60 ⁴	1.03 ⁴	1.1 ⁴	3.65 ⁴	1.35 ⁴
	5	2.68 ⁶	1.79 ⁶	1.9 ⁶	5.98 ⁶	2.34 ⁶
	6	4.32 ⁸	3.16 ⁸	3.4 ⁸	8.89 ⁸	4.19 ⁸
20	1	1.87 ²	1.61 ²	1.2 ²	3.04 ²	2.15 ²
	2	3.58 ¹	2.30 ¹	3.0 ¹	7.10 ¹	3.66 ¹
	3	5.72 ³	3.48 ³	5.9 ³	1.23 ²	5.96 ³
	4	9.78 ⁵	5.66 ⁵	1.1 ⁴	2.11 ⁴	9.26 ⁵
	5	1.70 ⁶	9.90 ⁷	2.0 ⁶	3.62 ⁶	1.60 ⁶
	6	2.82 ⁸	1.75 ⁸	3.6 ⁸	5.61 ⁸	2.81 ⁸

Table 3

ROSSELAND MEAN ABSORPTION COEFFICIENTS FOR NITROGEN,
OXYGEN, AND AIR

Temperature (eV)	Nitrogen Ion Density (nuclei cm ⁻³)	Mean Absorption Coefficients (cm ⁻¹)		Oxygen Ion Density (nuclei cm ⁻³)	LMSC Mean Absorption Coefficients (cm ⁻¹)	Air Ion Density (nuclei cm ⁻³)	LMSC Mean Absorption Coefficients (cm ⁻¹)
		LMSC	Ref. 2				
1	5.25 ¹⁸	1.22 ³		5.38 ¹⁸	2.48 ³	5.28 ¹⁸	
	5.36 ¹⁷	1.10 ⁴		5.39 ¹⁷	1.78 ⁶	5.37 ¹⁷	
	5.37 ¹⁶	9.13 ⁶		5.37 ¹⁶	1.47 ⁵	5.37 ¹⁶	
	5.38 ¹⁵	5.40 ⁷		5.38 ¹⁵	9.36 ⁷	5.38 ¹⁵	
	5.38 ¹⁴	1.56 ⁸		5.38 ¹⁴	2.93 ⁸	5.38 ¹⁴	
	5.38 ¹³	2.06 ¹⁰		5.38 ¹³	3.74 ¹⁰	5.38 ¹³	
2	2.34 ²⁰	6.68 ¹		3.32 ²⁰	1.18 ²	2.55 ²⁰	9.78 ¹
	3.16 ¹⁸	1.16 ¹		3.77 ¹⁸	2.27 ¹	3.29 ¹⁸	1.52 ¹
	3.32 ¹⁷	1.07 ³		3.85 ¹⁷	1.47 ³	3.43 ¹⁷	1.24 ³
	3.86 ¹³	1.97 ⁵		4.68 ¹⁶	2.35 ⁵	4.03 ¹⁶	2.09 ⁵
	3.90 ¹⁵	5.58 ⁷		5.59 ¹⁵	3.28 ⁷	4.26 ¹⁵	5.19 ⁷
	3.97 ¹⁴	1.19 ⁸		5.59 ¹⁴	4.10 ⁹	4.31 ¹⁴	1.06 ⁸
5	4.56 ²⁰	2.81 ²	1.5 ²	3.02 ²⁰	2.62 ²	2.66 ²⁰	3.35 ²
	5.50 ¹⁸	5.15 ¹	3.2 ⁻¹	6.57 ¹⁸	4.10 ¹	5.73 ¹⁸	6.05 ¹
	5.24 ¹⁷	6.35 ³	6.3 ³	6.45 ¹⁷	5.96 ³	5.50 ¹⁷	6.92 ³
	5.65 ¹⁶	1.06 ⁻⁴	1.0 ⁻⁴	6.76 ¹⁶	9.61 ⁵	5.88 ¹⁶	1.12 ⁻⁴
	6.49 ¹⁵	1.67 ⁶	1.8 ⁻⁶	7.97 ¹⁵	1.45 ⁶	6.80 ¹⁵	1.76 ⁻⁶
	7.50 ¹⁴	2.41 ⁸	3.6 ⁸	9.25 ¹⁴	1.99 ⁸	7.87 ¹⁴	2.51 ⁸
10	4.11 ²⁰	6.92 ²	3.4 ²	4.76 ²⁰	3.20 ²	4.25 ²⁰	7.78 ²
	6.81 ¹⁸	1.01 ¹	7.3 ¹	1.04 ¹⁹	7.97 ¹	9.14 ¹⁸	1.09 ¹
	8.71 ¹⁷	1.04 ⁻²	9.6 ³	1.03 ¹⁸	1.02 ⁻²	9.04 ¹⁷	1.16 ⁻²
	9.78 ¹⁶	1.27 ⁻⁴	1.2 ⁻⁴	1.11 ¹⁷	1.69 ⁴	1.01 ¹⁷	1.17 ⁻⁴
	1.23 ¹⁶	1.67 ⁶	1.5 ⁻⁶	1.29 ¹⁶	2.96 ⁶	1.25 ¹⁶	2.15 ⁻⁶
	1.62 ¹⁵	2.95 ⁸	2.8 ⁸	1.58 ¹⁵	4.36 ⁸	1.81 ¹⁵	3.81 ⁸
15	5.53 ²⁰	4.19 ²	2.5 ²	6.40 ²⁰	7.73 ²	5.72 ²⁰	5.50 ²
	1.27 ¹⁹	6.55 ¹	6.3 ¹	1.42 ¹⁹	1.08 ¹	1.30 ¹⁹	8.16 ¹
	1.39 ¹⁸	5.48 ³	5.8 ³	1.44 ¹⁸	1.12 ⁻²	1.40 ¹⁸	8.01 ³
	1.72 ¹⁷	7.01 ⁵	5.9 ⁻⁵	1.68 ¹⁷	1.34 ⁴	1.71 ¹⁷	1.04 ⁻⁵
	2.23 ¹⁶	1.16 ⁶	9.8 ⁷	2.14 ¹⁶	1.85 ⁶	2.22 ¹⁶	1.66 ⁻⁶
	2.96 ¹⁵	3.17 ⁸	3.2 ⁸	2.83 ¹⁵	3.78 ⁸	2.94 ¹⁵	3.88 ⁸
20	7.07 ²⁰	1.87 ²	1.6 ²	8.01 ²⁰	5.42 ²	7.27 ²⁰	2.81 ²
	1.80 ¹⁹	3.15 ¹	5.0 ⁻¹	1.86 ¹⁹	7.44 ¹	1.81 ¹⁹	5.11 ¹
	2.08 ¹⁸	3.67 ⁻³	6.1 ⁻³	2.04 ¹⁸	6.30 ³	2.07 ¹⁸	5.80 ⁻³
	2.62 ¹⁷	5.74 ⁵	6.9 ⁻⁵	2.52 ¹⁷	8.01 ⁵	2.59 ¹⁷	8.91 ⁻⁵
	3.12 ¹⁶	1.11 ⁶	1.2 ⁻⁶	3.27 ¹⁶	1.35 ⁶	3.19 ¹⁶	1.39 ⁻⁶
	4.55 ¹⁵	3.58 ⁸	4.2 ⁸	4.34 ¹⁵	4.04 ⁸	4.51 ¹⁵	4.31 ⁸

E. Mean Air Absorption Coefficients (above 20 eV)

The tables which follow list values for air of the Planck and Rosseland opacities, or mean mass absorption coefficients (in cm^2/gm),

$$\bar{K}_P = \bar{\mu}_P / \rho$$

$$\bar{K}_R = \bar{\mu}_R / \rho$$

where $\bar{\mu}_P$ and $\bar{\mu}_R$ are the Planck and Rosseland mean absorption coefficients, respectively, defined in Sections D.1 and D.2 (see also Armstrong and Nicholls, 1966, Parts A and B). Also included in the tables are the Planck and Rosseland mean free paths defined, respectively, by

$$\Lambda_P = 1/\bar{\mu}_P$$

$$\Lambda_R = 1/\bar{\mu}_R$$

and given in units of cm.

These quantities are tabulated as functions of density ρ (in gm/cm^3), or log density, for selected temperatures from 22.5 eV to 2,250 eV, and have been obtained from the work of Freeman (1963). The Stewart-Pyatt (1961) DIAPHANOUS code was used in the computation. The results, therefore, include line, or bound-bound transitions, and make use of hydrogenic approximations to the matrix elements with Gaunt factors set equal to unity. Approximations to the electron-impact line broadening theory of Baranger (see Stewart and Pyatt, 1961) were employed to obtain line shapes and widths.

It should be noted that the Rosseland means include scattering, which may lead to errors if these are used for calculating absorption. The Planck

means, on the other hand, do not include a scattering contribution.

References

- Armstrong, B.H. and R. Nicholls, The Radiative Properties of Heated Air, Thermal Radiation Phenomena, Lockheed, Palo Alto, 1966.
- Freeman, B.E., Opacity and Absorption Coefficients for Ionic Air, General Atomic Report, GAMD-4566, 1963.
- Stewart, J.C. and K.D. Pyatt, Jr., Theoretical Studies of Optical Properties, Air Force Special Weapons Center Report, AFSWC-TR-61-71, 1961.

kT (eV) = 22.5

RHO (GM/CM3)	LOG RHO (GM/CM3)	KROS (CM2/GM)	KPLK (CM2/GM)	LMDAROS (CM)	LMDAPLK (CM)
2.300-01	-1.470+00	1.034+04	5.788+04	4.206-04	7.513-05
4.020-02	-3.214+00	8.090+03	3.693+04	3.075-03	6.736-04
7.047-03	-4.955+00	4.973+03	2.042+04	2.854-02	6.948-03
1.281-03	-6.660+00	1.747+03	8.160+03	4.470-01	9.568-02
2.457-04	-8.311+00	3.683+02	2.366+03	1.105+01	1.720+00
4.828-05	-9.938+00	6.700+01	5.634+02	3.091+02	3.676+01
8.811-06	-1.164+01	1.121+01	1.126+02	1.012+04	1.008+03
1.496-06	-1.341+01	1.972+00	2.034+01	3.391+05	3.288+04
2.300-07	-1.529+01	4.951-01	3.850+00	8.781+06	1.129+06
2.989-08	-1.733+01	2.433-01	1.210+00	1.375+08	2.766+07

kT (eV) = 34

RHO (GM/CM3)	LOG RHO (GM/CM3)	KROS (CM2/GM)	KPLK (CM2/GM)	LMDAROS (CM)	LMDAPLK (CM)
3.618-01	-1.017+00	3.092+03	2.720+04	8.937-04	1.016-04
6.493-02	-2.734+00	1.722+03	1.353+04	8.943-03	1.138-03
1.201-02	-4.422+00	6.948+02	5.145+03	1.199-01	1.619-02
2.300-03	-6.075+00	1.966+02	1.540+03	2.211+00	2.823-01
4.503-04	-7.706+00	4.614+01	4.493+02	4.813+01	4.942+00
8.930-05	-9.323+00	1.016+01	1.784+02	1.102+03	6.277+01
1.622-05	-1.103+01	2.313+00	1.147+02	2.666+04	5.377+02
2.672-06	-1.283+01	7.007-01	8.377+01	5.342+05	4.468+03
3.858-07	-1.477+01	3.123-01	4.108+01	8.298+06	6.309+04
4.772-08	-1.686+01	2.198-01	1.620+01	9.533+07	1.293+06
4.420-09	-1.924+01	2.024-01	5.813+00	1.118+09	3.892+07

kT (eV) = 50

RHO (GM/CM3)	LOG RHO (GM/CM3)	KROS (CM2/GM)	KPLK (CM2/GM)	LMDAROS (CM)	LMDAPLK (CM)
5.858-01	-5.348-01	1.525+03	1.221+04	1.120-03	1.398-04
1.092-01	-2.215+00	6.087+02	5.464+03	1.505-02	1.677-03
2.060-02	-3.883+00	1.937+02	2.616+03	2.506-01	1.856-02
3.990-03	-5.524+00	5.126+01	1.607+03	4.890+00	1.560-01
7.649-04	-7.176+00	1.399+01	1.147+03	9.348+01	1.140+00
1.436-04	-8.849+00	4.155+00	6.887+02	1.676+03	1.011+01
2.474-05	-1.061+01	1.346+00	3.618+02	3.004+04	1.117+02
3.910-06	-1.245+01	5.291-01	1.513+02	4.834+05	1.691+03
5.728-07	-1.437+01	2.715-01	3.827+01	6.431+06	4.562+04
7.268-08	-1.644+01	2.119-01	7.807+00	6.494+07	1.762+06
7.179-09	-1.875+01	2.011-01	9.932-01	6.927+08	1.402+08

kT (eV) = 70

RHO (GM/CM3)	LOG RHO (GM/CM3)	KROS (CM2/GM)	KPLK (CM2/GM)	LMDAROS (CM)	LMDAPLK (CM)
9.224-01	-8.073-02	1.544+03	9.421+03	7.022-04	1.151-04
1.724-01	-1.758+00	5.191+02	5.864+03	1.117-02	9.892-04
3.219-02	-3.436+00	1.550+02	4.120+03	2.004-01	7.538-03
5.940-03	-5.126+00	4.560+01	2.701+03	3.692+00	6.233-02
1.098-03	-6.814+00	1.245+01	1.493+03	7.313+01	6.096-01
2.044-04	-8.495+00	3.408+00	6.230+02	1.435+03	7.852+00
3.595-05	-1.023+01	9.530-01	1.834+02	2.919+04	1.517+02
5.980-06	-1.203+01	3.669-01	4.176+01	4.558+05	4.005+03
9.140-07	-1.391+01	2.353-01	7.058+00	4.649+06	1.550+05
1.187-07	-1.595+01	2.097-01	9.350-01	4.018+07	9.013+06
1.186-08	-1.825+01	2.026-01	9.380-02	4.159+08	8.985+08

kT (eV) = 100

RHO (GM/CM3)	LOG RHO (GM/CM3)	KROS (CM2/GM)	KPLK (CM2/GM)	LMDAROS (CM)	LMDAPLK (CM)
1.470+00	3.855-01	2.242+03	9.735+03	3.033-04	6.986-05
2.672-01	-1.320+00	7.415+02	6.559+03	5.047-03	5.705-04
4.821-02	-3.032+00	2.115+02	3.960+03	9.808-02	5.237-03
8.844-03	-4.728+00	5.044+01	1.859+03	2.241+00	6.082-02
1.678-03	-6.390+00	1.017+01	6.111+02	5.861+01	9.755-01
3.279-04	-8.023+00	2.063+00	1.564+02	1.478+03	1.950+01
5.979-05	-9.725+00	5.871-01	3.139+01	2.849+04	5.328+02
1.014-05	-1.150+01	3.157-01	5.503+00	3.125+05	1.793+04
1.559-06	-1.337+01	2.432-01	8.535-01	2.638+06	7.518+05
2.026-07	-1.541+01	2.118-01	1.112-01	2.330+07	4.438+07
2.026-08	-1.771+01	2.010-01	1.113-02	2.456+08	4.434+09

kT (eV) = 150

RHO (GM/CM3)	LOG RHO (GM/CM3)	KROS (CM2/GM)	KPLK (CM2/GM)	LMDAROS (CM)	LMDAPLK (CM)
2.393+00	8.725-01	2.319+03	7.079+03	1.802-04	5.903-05
4.307-01	-8.424-01	9.122+02	3.876+03	2.545-03	5.990-04
7.930-02	-2.535+00	2.289+02	1.563+03	5.509-02	8.068-03
1.524-02	-4.184+00	4.086+01	4.467+02	1.606+00	1.469-01
3.002-03	-5.809+00	6.856+00	1.038+02	4.859+01	3.209+00
5.977-04	-7.422+00	1.531+00	2.192+01	1.093+03	7.634+01
1.097-04	-9.118+00	5.651-01	4.123+00	1.613+04	2.211+03
1.862-05	-1.089+01	3.122-01	7.118-01	1.721+05	7.548+04
2.863-06	-1.276+01	2.234-01	1.100-01	1.563+06	3.175+06
3.722-07	-1.480+01	2.028-01	1.432-02	1.325+07	1.876+08
3.722-08	-1.711+01	1.997-01	1.433-03	1.345+08	1.875+10

kT (eV) = 225

RHO (GM/CM3)	LOG RHO (GM/CM3)	KROS (CM2/GM)	KPLK (CM2/GM)	LMDAROS (CM)	LMDAPLK (CM)
3.975+00	1.380+00	6.672+02	3.255+03	3.771-04	7.729-05
7.323-01	-3.115-01	2.632+02	1.231+03	5.187-03	1.109-03
1.406-01	-1.962+00	7.290+01	3.632+02	9.758-02	1.959-02
2.763-02	-3.589+00	1.591+01	8.623+01	2.275+00	4.198-01
5.499-03	-5.203+00	3.468+00	1.847+01	5.244+01	9.847+00
1.097-03	-6.815+00	9.305-01	3.816+00	9.794+02	2.388+02
2.015-04	-8.510+00	3.714-01	7.115-01	1.337+04	6.976+03
3.420-05	-1.028+01	2.350-01	1.223-01	1.244+05	2.391+05
5.260-06	-1.216+01	2.052-01	1.889-02	9.265+05	1.007+07
6.837-07	-1.420+01	2.001-01	2.458-03	7.308+06	5.950+08
6.837-08	-1.650+01	1.995-01	2.459-04	7.333+07	5.947+10

kT (eV) = 340

RHO (GM/CM3)	LOG RHO (GM/CM3)	KROS (CM2/GM)	KPLK (CM2/GM)	LMDAROS (CM)	LMDAPLK (CM)
6.892+00	1.930+00	1.089+02	1.014+03	1.332-03	1.431-04
1.312+00	2.719-01	3.784+01	3.363+02	2.014-02	2.266-03
2.576-01	-1.357+00	9.975+00	8.344+01	3.893-01	4.653-02
5.117-02	-2.973+00	2.617+00	1.857+01	7.468+00	1.053+00
1.020-02	-4.586+00	8.341-01	3.871+00	1.176+02	2.533+01
2.037-03	-6.196+00	3.786-01	7.907-01	1.296+03	6.209+02
3.741-04	-7.891+00	2.439-01	1.471-01	1.096+04	1.817+04
6.352-05	-9.664+00	2.081-01	2.520-02	7.565+04	6.247+05
9.770-06	-1.154+01	2.008-01	3.888-03	5.098+05	2.633+07
1.270-06	-1.358+01	1.996-01	5.059-04	3.945+06	1.556+09
1.270-07	-1.588+01	1.994-01	5.060-05	3.949+07	1.556+11

kT (eV) = 500

RHO (GM/CM3)	LOG RHO (GM/CM3)	KROS (CM2/GM)	KPLK (CM2/GM)	LMDAROS (CM)	LMDAPLK (CM)
1.180+01	2.468+00	2.583+01	3.656+02	3.281-03	2.318-04
2.313+00	8.388-01	7.891+00	1.021+02	5.476-02	4.234-03
4.575-01	-7.821-01	2.208+00	2.343+01	9.899-01	9.329-02
9.119-02	-2.395+00	7.611-01	4.966+00	1.441+01	2.208+00
1.818-02	-4.008+00	3.746-01	1.032+00	1.469+02	5.328+01
3.631-03	-5.618+00	2.535-01	2.101-01	1.087+03	1.311+03
6.670-04	-7.313+00	2.128-01	3.896-02	7.045+03	3.848+04
1.133-04	-9.086+00	2.018-01	6.662-03	4.373+04	1.325+06
1.742-05	-1.096+01	1.998-01	1.027-03	2.873+05	5.587+07
2.265-06	-1.300+01	1.994-01	1.336-04	2.214+06	3.304+09
2.265-07	-1.530+01	1.994-01	1.337-05	2.214+07	3.303+11

kT (eV) = 700

RHO (GM/CM3)	LOG RHO (GM/CM3)	KROS (CM2/GM)	KPLK (CM2/GM)	LMDAROS (CM)	LMDAPLK (CM)
1.925+01	2.958+00	8.576+00	1.478+02	6.057-03	3.515-04
3.819+00	1.340+00	2.563+00	3.712+01	1.022-01	7.054-03
7.570-01	-2.784-01	8.764-01	8.253+00	1.507+00	1.601-01
1.507-01	-1.892+00	4.103-01	1.733+00	1.617+01	3.830+00

kT (eV) = 1000

RHO (GM/CM3)	LOG RHO (GM/CM3)	KROS (CM2/GM)	KPLK (CM2/GM)	LMDAROS (CM)	LMDAPLK (CM)
3.270+01	3.487+00	3.083+00	5.662+01	9.919-03	5.401-04
6.508+00	1.873+00	1.056+00	1.348+01	1.455-01	1.140-02
1.292+00	2.560-01	4.654-01	2.891+00	1.663+00	2.677-01
2.572-01	-1.358+00	2.872-01	6.097-01	1.354+01	6.378+00

kT (eV) = 2250

RHO (GM/CM3)	LOG RHO (GM/CM3)	KROS (CM2/GM)	KPLK (CM2/GM)	LMDAROS (CM)	LMDAPLK (CM)
1.098+02	4.699+00	6.583-01	7.478+00	1.384-02	1.218-03
2.174+01	3.079+00	3.494-01	1.603+00	1.316-01	2.869-02
4.337+00	1.467+00	2.492-01	3.417-01	9.252-01	6.748-01
8.677-01	-1.419-01	2.144-01	7.009-02	5.376+00	1.644+01

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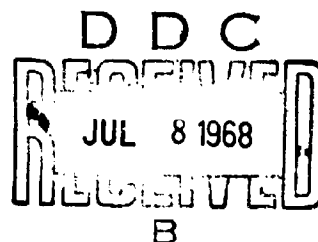
18 June 1968

Two of the tables in the report NASA 1917-3 Thermal Radiation Phenomena, Vol. 3, Tables of Radiative Properties of Air were incorrect and should be replaced by the enclosed tables. One table goes from page 425 to 427 and the other one from page 446 to 449. Another correction should be made on page 422 where the factor $\frac{\pi^4}{15}$ in the two equations should really be $\frac{15}{\pi^4}$.

R. Landshoff

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LOCKHEED MISSILES & SPACE COMPANY



TOTAL AND CUT-OFF PLANCK MEAN ABSORPTION COEFFICIENTS (CM⁻¹)

TEMPERATURE °C	1.0E 01	1.0E 00	DENSITY (TIMES NORMAL)	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
1000.								
TOTAL	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12
CUT-OFF	9.42E-10	2.88E-11	9.42E-13	2.93E-14	9.42E-16	2.99E-17	9.42E-19	2.99E-20
1	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12
2	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12
3	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12
4	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12
5	1.84E-05	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12
6	2.88E-07	1.84E-06	1.84E-07	1.84E-08	1.84E-09	1.84E-10	1.84E-11	1.84E-12
2000.								
TOTAL	1.20E-03	1.17E-04	1.16E-05	1.16E-06	1.15E-07	1.14E-08	1.11E-09	1.01E-10
CUT-OFF	6.04E-05	1.28E-06	4.03E-08	1.27E-09	4.00E-11	1.28E-12	3.71E-14	9.79E-16
1	1.20E-03	1.17E-04	1.16E-05	1.16E-06	1.15E-07	1.14E-08	1.11E-09	1.01E-10
2	1.20E-03	1.17E-04	1.16E-05	1.16E-06	1.15E-07	1.14E-08	1.11E-09	1.01E-10
3	1.46E-04	1.17E-04	1.16E-05	1.16E-06	1.15E-07	1.14E-08	1.11E-09	1.01E-10
4	1.13E-04	1.17E-04	1.16E-05	1.16E-06	1.15E-07	1.14E-08	1.11E-09	1.01E-10
5	7.62E-06	1.13E-05	1.10E-06	1.16E-06	1.15E-07	1.14E-08	1.11E-09	1.01E-10
6	6.87E-07	1.10E-06	1.10E-06	1.07E-07	1.15E-07	1.14E-08	1.11E-09	1.01E-10
3000.								
TOTAL	1.36E-03	3.06E-04	2.71E-05	2.33E-06	1.60E-07	7.19E-09	2.45E-10	7.96E-12
CUT-OFF	1.11E-03	3.43E-05	1.01E-06	2.53E-06	4.13E-10	3.24E-12	2.05E-14	1.99E-16
1	1.36E-03	3.06E-04	2.71E-05	2.33E-06	1.60E-07	7.19E-09	2.45E-10	7.96E-12
2	1.63E-03	3.06E-04	2.71E-05	2.33E-06	1.60E-07	7.19E-09	2.45E-10	7.96E-12
3	1.08E-03	8.57E-05	2.69E-05	2.33E-06	1.60E-07	7.19E-09	2.45E-10	7.96E-12
4	1.29E-04	8.36E-05	5.95E-06	2.33E-06	1.60E-07	7.19E-09	2.45E-10	7.96E-12
5	5.27E-06	1.31E-06	5.81E-06	4.63E-07	1.60E-07	7.19E-09	2.45E-10	7.96E-12
6	1.20E-04	1.89E-06	1.38E-06	4.52E-07	3.05E-08	7.13E-09	2.45E-10	7.96E-12
4000.								
TOTAL	1.24E-02	8.04E-04	4.24E-05	1.51E-06	4.70E-09	1.61E-09	6.55E-11	3.27E-12
CUT-OFF	4.54E-03	1.29E-04	2.83E-06	4.17E-08	5.33E-10	7.66E-12	1.18E-13	1.86E-15
1	1.24E-02	8.04E-04	4.24E-05	1.51E-06	4.70E-09	1.61E-09	6.55E-11	3.27E-12
2	5.59E-03	7.84E-04	4.24E-05	1.51E-06	4.70E-09	1.61E-09	6.55E-11	3.27E-12
3	1.81E-03	2.49E-04	3.33E-05	1.50E-06	4.70E-09	1.61E-09	6.55E-11	3.27E-12
4	1.79E-04	1.40E-04	1.16E-05	1.35E-06	4.70E-09	1.61E-09	6.55E-11	3.27E-12
5	0.	1.98E-05	5.45E-06	4.66E-07	4.69E-09	1.61E-09	6.55E-11	3.27E-12
6	0.	0.	2.40E-06	3.35E-07	3.90E-08	1.61E-09	6.55E-11	3.27E-12
5000.								
TOTAL	5.93E-02	2.45E-03	8.35E-05	2.37E-06	1.35E-07	7.57E-09	3.45E-10	9.83E-12
CUT-OFF	1.61E-02	4.40E-04	8.07E-06	1.25E-07	1.95E-09	3.08E-11	5.04E-13	1.09E-16
1	5.93E-02	2.45E-03	8.35E-05	2.37E-06	1.35E-07	7.57E-09	3.45E-10	9.83E-12
2	1.44E-02	1.18E-03	4.35E-05	2.47E-06	1.35E-07	7.57E-09	3.45E-10	9.83E-12
3	0.	5.66E-04	6.42E-05	2.81E-06	1.35E-07	7.57E-09	3.45E-10	9.83E-12
4	0.	3.11E-04	2.62E-05	2.81E-06	1.35E-07	7.57E-09	3.45E-10	9.83E-12
5	0.	0.	1.84E-05	1.51E-06	1.35E-07	7.57E-09	3.45E-10	9.83E-12
6	0.	0.	1.27E-06	1.17E-06	1.22E-07	7.57E-09	3.45E-10	9.83E-12
6000.								
TOTAL	1.56E-01	5.79E-03	2.13E-04	1.01E-05	4.83E-07	1.50E-08	3.54E-10	1.11E-11
CUT-OFF	3.93E-02	1.02E-03	1.85E-05	3.16E-07	7.26E-09	4.05E-10	3.47E-11	3.26E-12
1	5.72E-02	5.75E-03	2.13E-04	1.01E-05	4.83E-07	1.50E-08	3.54E-10	1.11E-11
2	7.51E-02	3.44E-03	2.13E-04	1.01E-05	4.83E-07	1.50E-08	3.54E-10	1.11E-11
3	1.40E-04	1.56E-03	2.06E-04	1.01E-05	4.83E-07	1.50E-08	3.54E-10	1.11E-11
4	0.	1.01E-04	1.11E-04	1.00E-05	4.91E-07	1.49E-09	3.46E-10	1.11E-11
5	0.	0.	9.33E-05	9.33E-06	4.79E-07	1.43E-08	3.41E-10	1.03E-11
6	0.	0.	9.	2.13E-06	4.77E-07	1.47E-08	3.32E-10	9.30E-12

TOTAL AND CUT-OFF PLANK MEAN ABSORPTION COEFFICIENTS (cm⁻¹)

TEMPERATURE C (DEG. K)	1.0E 01	1.0E 00	1.0E 00	1.0E 01	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
7000.									
TOTAL	2.85E-01	1.09E-02	4.78E-04	2.09E-05	6.35E-07	2.14E-09	1.31E-09	1.03E-10	
CONT.	1.60E-02	2.02E-03	4.12E-05	1.28E-06	1.11E-08	1.07E-09	1.01E-10		
1	1.27E-01	1.08E-02	4.75E-04	2.06E-05	6.35E-07	2.14E-09	1.31E-09	1.03E-10	
2	2.81E-02	8.81E-03	4.72E-04	2.05E-05	5.96E-07	2.14E-09	1.31E-09	1.03E-10	
3	0.	3.04E-03	4.65E-04	2.03E-05	5.52E-07	1.95E-09	1.31E-09	1.08E-10	
4	0.	1.38E-05	3.32E-04	1.98E-05	5.35E-07	1.39E-09	1.03E-09	1.08E-10	
5	0.	0.	7.89E-06	1.94E-05	5.33E-07	1.20E-09	5.58E-10	8.05E-11	
6	0.	0.	0.	1.21E-06	5.27E-07	1.20E-09	3.77E-10	3.55E-11	
8000.									
TOTAL	4.65E-01	1.54E-02	6.68E-04	3.48E-05	1.92E-06	1.59E-07	1.32E-09	1.06E-09	
CONT.	1.54E-01	4.02E-03	1.78E-04	1.58E-05	1.52E-07	1.30E-09	1.06E-09		
1	2.37E-01	1.86E-02	7.85E-04	2.96E-05	1.92E-06	1.59E-07	1.32E-09	1.06E-09	
2	1.52E-03	1.73E-02	7.66E-04	2.35E-05	1.36E-06	1.59E-07	1.32E-09	1.06E-09	
3	0.	1.60E-03	7.16E-04	2.14E-05	7.77E-07	1.05E-07	1.37E-09	1.06E-09	
4	0.	0.	2.70E-04	2.10E-05	5.51E-07	6.68E-08	9.37E-09	1.06E-09	
5	0.	0.	4.69E-06	2.04E-05	5.51E-07	2.44E-08	3.75E-09	7.49E-10	
6	0.	0.	0.	1.44E-06	5.46E-07	2.44E-08	1.65E-09	2.90E-10	
9000.									
TOTAL	7.32E-01	3.51E-02	1.90E-03	1.27E-04	1.13E-05	1.00E-06	7.91E-09	3.74E-09	
CONT.	2.79E-01	1.27E-02	1.22E-03	1.15E-04	1.11E-05	9.96E-07	7.90E-09	3.73E-09	
1	3.77E-01	2.79E-02	1.06E-03	8.70E-05	1.13E-05	1.00E-06	7.91E-09	3.74E-09	
2	0.	2.58E-02	9.42E-04	4.33E-05	7.32E-06	1.00E-06	7.91E-09	3.74E-09	
3	0.	8.44E-04	8.89E-04	2.94E-05	2.93E-06	6.25E-07	7.91E-09	3.74E-09	
4	0.	0.	3.19E-04	2.84E-05	1.49E-06	2.52E-07	4.93E-09	3.74E-09	
5	0.	0.	0.	2.75E-05	1.49E-06	1.14E-07	1.94E-09	2.55E-09	
6	0.	0.	0.	2.55E-07	1.49E-06	1.14E-07	6.46E-09	9.65E-10	
10000.									
TOTAL	1.23E 00	7.91E-02	6.34E-03	5.61E-04	4.31E-05	3.93E-06	2.12E-07	4.93E-09	
CONT.	6.05E-01	5.30E-02	5.33E-03	5.33E-04	4.30E-05	3.93E-06	2.12E-07	4.93E-09	
1	2.32E-01	3.95E-02	2.11E-03	3.35E-04	4.91E-05	3.93E-06	2.12E-07	4.93E-09	
2	0.	3.47E-02	1.36E-03	1.29E-04	2.68E-05	3.93E-06	2.12E-07	4.93E-09	
3	0.	0.	1.33E-03	7.23E-05	1.15E-05	2.33E-06	2.12E-07	4.93E-09	
4	0.	0.	3.01E-04	7.23E-05	5.47E-06	9.16E-07	1.29E-07	4.93E-09	
5	0.	0.	0.	4.21E-05	5.47E-06	4.23E-07	4.93E-09	4.93E-09	
6	0.	0.	0.	0.	3.09E-06	4.23E-07	2.30E-09	2.50E-09	
11000.									
TOTAL	2.35E 00	2.07E-01	1.97E-02	1.79E-03	1.54E-04	9.36E-06	2.90E-07	3.90E-09	
CONT.	1.59E 00	1.95E-01	1.93E-02	1.78E-03	1.54E-04	9.36E-06	2.90E-07	3.90E-09	
1	1.53E-01	5.60E-02	5.15E-03	1.02E-03	1.54E-04	9.36E-06	2.90E-07	3.90E-09	
2	0.	4.10E-02	2.81E-03	3.79E-04	3.64E-05	9.36E-06	2.90E-07	3.90E-09	
3	0.	0.	2.29E-03	2.09E-04	3.13E-05	5.63E-06	2.90E-07	3.90E-09	
4	0.	0.	0.	1.60E-04	1.55E-05	2.10E-06	2.90E-07	3.90E-09	
5	0.	0.	0.	1.39E-05	1.31E-05	1.02E-06	1.37E-07	3.80E-09	
6	0.	0.	0.	0.	3.65E-06	9.05E-07	3.25E-08	3.60E-09	
12000.									
TOTAL	5.16F 00	5.25E-01	5.07E-02	4.60E-03	3.37E-04	1.43E-05	2.53E-07	2.72E-09	
CONT.	4.74E 00	5.09E-01	5.05E-02	4.50E-03	3.37E-04	1.43E-05	2.53E-07	2.72E-09	
1	3.73E-02	9.22E-02	6.30E-03	2.57E-03	3.37E-04	1.43E-05	2.53E-07	2.72E-09	
2	0.	5.51E-02	6.12E-03	5.13E-04	2.05E-04	1.43E-05	2.53E-07	2.72E-09	
3	0.	0.	3.61E-03	4.98E-04	5.45E-05	3.34E-06	2.53E-07	2.72E-09	
4	0.	0.	0.	2.53E-04	3.67E-05	3.11E-06	2.53E-07	2.72E-09	
5	0.	0.	0.	2.10E-05	2.10E-05	1.50E-06	1.47E-07	2.72E-09	
6	0.	0.	0.	0.	1.21E-06	1.21E-06	5.70E-08	2.72E-09	

TOTAL AND CUT-OFF PLANK MEAN ABSORPTION COEFFICIENTS (cm⁻¹)

TEMPERATURE (DEG. K)	C	1.0E 01	1.0E 00	DENSITY (TIMES NORMAL)	1.0E-01	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
13000.	TOTAL	3.17E 00	1.97E-01	1.57E-02	1.26E-03	6.22E-05	1.77E-06	2.32E-08	2.32E-09	2.35E-10
	CONT.	2.41E 00	1.94E-01	1.55E-02	1.26E-03	6.22E-05	1.77E-06	2.32E-08	2.32E-09	2.35E-10
	1	0.	1.41E-01	1.31E-02	1.26E-03	6.22E-05	1.77E-06	2.32E-08	2.32E-09	2.35E-10
	2	0.	1.1E-03	1.03E-02	1.04E-03	6.22E-05	1.77E-06	2.32E-08	2.32E-09	2.35E-10
	3	0.	0.	4.34E-03	8.50E-04	6.22E-05	1.77E-06	2.32E-08	2.32E-09	2.35E-10
	4	0.	0.	0.	3.78E-04	5.56E-05	1.77E-06	2.32E-08	2.32E-09	2.35E-10
14000.	TOTAL	2.19E 01	2.23E 00	2.05E-01	1.57E-02	7.20E-04	1.34E-05	1.47E-07	1.47E-07	1.45E-09
	CONT.	2.12E 01	2.22E 00	2.05E-01	1.57E-02	7.20E-04	1.34E-05	1.47E-07	1.47E-07	1.45E-09
	1	0.	2.09E-01	2.42E-02	8.10E-03	7.20E-04	1.34E-05	1.47E-07	1.47E-07	1.45E-09
	2	0.	0.	1.57E-02	1.80E-03	4.04E-04	1.34E-05	1.47E-07	1.47E-07	1.45E-09
	3	0.	1.20E-03	0.	3.91E-04	1.37E-04	1.34E-05	1.47E-07	1.47E-07	1.45E-09
	4	0.	0.	0.	0.	6.82E-05	6.31E-05	1.47E-07	1.47E-07	1.45E-09
15000.	TOTAL	7.45E 00	5.75E-01	4.67E-02	3.04E-03	9.04E-05	1.29E-06	1.35E-08	1.35E-08	1.42E-10
	CONT.	6.95E 00	5.69E-01	4.66E-02	3.07E-03	9.04E-05	1.29E-06	1.35E-08	1.35E-08	1.42E-10
	1	0.	2.88E-01	3.78E-02	3.08E-03	9.04E-05	1.29E-06	1.35E-08	1.35E-08	1.42E-10
	2	0.	0.	2.24E-02	2.86E-03	9.04E-05	1.29E-06	1.35E-08	1.35E-08	1.42E-10
	3	0.	0.	0.	1.64E-03	9.04E-05	1.29E-06	1.35E-08	1.35E-08	1.42E-10
	4	0.	0.	0.	1.22E-04	7.14E-05	1.29E-06	1.35E-08	1.35E-08	1.42E-10
16000.	TOTAL	6.27E 01	6.02E 00	5.64E-01	3.06E-02	7.37E-04	3.75E-06	9.14E-09	9.14E-09	1.18E-09
	CONT.	6.23E 01	6.02E 00	5.64E-01	3.06E-02	7.37E-04	3.75E-06	9.14E-09	9.14E-09	1.18E-09
	1	0.	3.72E-01	5.05E-02	1.52E-02	7.37E-04	3.75E-06	9.14E-09	9.14E-09	1.18E-09
	2	0.	0.	2.98E-02	3.19E-03	7.37E-04	3.75E-06	9.14E-09	9.14E-09	1.18E-09
	3	0.	0.	0.	1.91E-03	1.30E-04	9.73E-06	9.14E-09	9.14E-09	1.18E-09
	4	0.	0.	0.	0.	6.81E-05	9.71E-06	8.91E-09	8.91E-09	1.18E-09
17000.	TOTAL	1.57E 01	1.27E 00	9.37E-02	4.33E-03	7.44E-05	9.24E-07	9.17E-09	9.17E-09	1.62E-10
	CONT.	1.54E 01	1.27E 00	9.36E-02	4.33E-03	7.44E-05	9.24E-07	9.17E-09	9.17E-09	1.62E-10
	1	0.	4.59E-01	6.42E-02	4.33E-03	7.44E-05	9.24E-07	9.17E-09	9.17E-09	1.62E-10
	2	0.	0.	3.46E-02	3.97E-03	7.44E-05	9.24E-07	9.17E-09	9.17E-09	1.62E-10
	3	0.	0.	0.	2.15E-03	7.44E-05	9.24E-07	9.17E-09	9.17E-09	1.62E-10
	4	0.	0.	0.	0.	6.90E-05	9.24E-07	9.17E-09	9.17E-09	1.62E-10
18000.	TOTAL	1.31E 02	1.17E 01	6.46E-01	2.55E-02	3.14E-04	6.39E-07	9.17E-09	9.17E-09	1.62E-10
	CONT.	1.30E 02	1.17E 01	6.46E-01	2.55E-02	3.14E-04	6.39E-07	9.17E-09	9.17E-09	1.62E-10
	1	0.	3.31E-01	7.52E-02	2.55E-02	3.14E-04	6.39E-07	9.17E-09	9.17E-09	1.62E-10
	2	0.	0.	4.03E-02	5.64E-03	3.14E-04	6.39E-07	9.17E-09	9.17E-09	1.62E-10
	3	0.	0.	0.	2.20E-03	3.55E-04	3.14E-04	6.39E-07	9.17E-09	1.62E-10
	4	0.	0.	0.	0.	5.03E-05	3.14E-04	6.39E-07	9.17E-09	1.62E-10

TOTAL AND CUT-OFF ROSSELAND MEAN FREE PATINS (CM)

TEMPERATURE C		DENSITY (TIMES NORMAL)									
1000. K1		1.0E 01	1.0E 00	1.0E 01	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07		
TOTAL	4.87E 09	4.87E 10	4.87E 11	4.87E 12	4.87E 13	4.87E 14	4.87E 15	4.87E 16	4.87E 17	4.87E 18	4.87E 19
CONT.	1.37E 01	4.34E 02	1.37E 04	4.33E 05	1.37E 07	4.34E 08	1.37E 10	4.34E 11	1.37E 12	4.34E 13	1.37E 14
1	2.11E 03	2.48E 02	1.43E 04	1.43E 05	1.43E 06	1.43E 07	1.43E 08	1.43E 09	1.43E 10	1.43E 11	1.43E 12
2	2.63E 02	1.43E 01	1.43E 02	1.43E 03	1.43E 04	1.43E 05	1.43E 06	1.43E 07	1.43E 08	1.43E 09	1.43E 10
3	4.30E 06	1.53E 21	4.79E 22	4.79E 23	4.79E 24	4.79E 25	4.79E 26	4.79E 27	4.79E 28	4.79E 29	4.79E 30
4	1.53E 22	4.79E 23	4.79E 24	4.79E 25	4.79E 26	4.79E 27	4.79E 28	4.79E 29	4.79E 30	4.79E 31	4.79E 32
5	4.79E 24	4.79E 25	4.79E 26	4.79E 27	4.79E 28	4.79E 29	4.79E 30	4.79E 31	4.79E 32	4.79E 33	4.79E 34
6	5.35E 29	9.57E 31	2.47E 30	2.47E 31	2.47E 32	2.47E 33	2.47E 34	2.47E 35	2.47E 36	2.47E 37	2.47E 38
TOTAL	2.06E 11	2.06E 12	2.06E 13	2.06E 14	2.06E 15	2.06E 16	2.06E 17	2.06E 18	2.06E 19	2.06E 20	2.06E 21
CONT.	1.17E 02	3.70E 03	1.17E 05	3.71E 06	1.17E 08	3.71E 09	1.17E 11	3.71E 12	1.17E 14	3.71E 15	1.17E 17
1	1.67E 04	5.76E 03	1.47E 02	1.47E 03	1.47E 04	1.47E 05	1.47E 06	1.47E 07	1.47E 08	1.47E 09	1.47E 10
2	5.62E 02	9.21E 01	1.66E 02	5.54E 05	5.54E 06	5.54E 07	5.54E 08	5.54E 09	5.54E 10	5.54E 11	5.54E 12
3	2.05E 01	1.64E 01	5.52E 05	4.62E 07	1.70E 11	5.37E 11	0.	0.	0.	0.	0.
4	1.60E 00	5.47E 07	4.62E 08	1.69E 12	5.37E 12	0.	0.	0.	0.	0.	0.
5	5.34E 08	4.61E 09	1.69E 13	8.23E 13	0.	0.	0.	0.	0.	0.	0.
6	4.61E 10	1.69E 14	8.23E 14	0.	0.	0.	0.	0.	0.	0.	0.
TOTAL	3.73E 05	3.69E 06	3.73E 07	3.67E 08	4.77E 09	1.24E 11	1.24E 12	1.24E 13	1.24E 14	1.24E 15	1.24E 16
CONT.	1.44E 12	1.46E 13	1.52E 14	1.72E 15	2.47E 16	5.44E 17	1.52E 19	4.34E 20	0.	0.	0.
1	2.64E 03	9.60E 03	8.34E 03	1.64E 02	1.59E 03	1.77E 01	0.	0.	0.	0.	0.
2	1.51E 03	1.23E 03	1.76E 01	1.10E 02	5.71E 02	1.42E 04	0.	0.	0.	0.	0.
3	1.09E 02	2.98E 00	9.20E 00	1.19E 02	7.25E 06	0.	0.	0.	0.	0.	0.
4	7.43E 00	9.42E 01	1.72E 03	3.50E 07	1.46E 07	0.	0.	0.	0.	0.	0.
5	9.41E 02	1.62E 04	2.74E 08	1.39E 07	0.	0.	0.	0.	0.	0.	0.
6	1.58E 05	2.52E 09	1.71E 08	0.	0.	0.	0.	0.	0.	0.	0.
TOTAL	5.81E 02	1.45E 04	4.41E 05	1.16E 07	2.75E 08	7.34E 09	2.12E 11	3.43E 12	0.	0.	0.
CONT.	6.91E 06	7.90E 07	1.16E 09	2.62E 10	9.29E 11	4.00E 13	3.29E 15	2.63E 17	0.	0.	0.
1	5.91E 07	1.45E 04	7.30E 03	9.20E 02	6.39E 01	1.09E 04	0.	0.	0.	0.	0.
2	5.91E 02	2.41E 03	2.99E 02	9.36E 01	3.02E 02	0.	0.	0.	0.	0.	0.
3	1.12E 02	3.42E 01	7.47E 00	2.61E 01	0.	0.	0.	0.	0.	0.	0.
4	2.26E 01	7.55E 01	5.93E 02	2.61E 04	0.	0.	0.	0.	0.	0.	0.
5	1.19E 01	1.57E 02	2.63E 05	0.	0.	0.	0.	0.	0.	0.	0.
6	2.67E 03	1.70E 06	6.69E 08	0.	0.	0.	0.	0.	0.	0.	0.
TOTAL	5.97E 01	2.17E 03	6.02E 04	1.56E 06	4.53E 07	9.79E 08	1.35E 10	5.55E 11	1.35E 12	1.35E 13	1.35E 14
CONT.	7.01E 01	4.09E 03	5.00E 05	1.10E 08	2.20E 10	2.00E 12	4.12E 02	0.	0.	0.	0.
1	5.97E 01	2.17E 03	6.25E 04	1.25E 03	2.10E 02	7.11E 03	0.	0.	0.	0.	0.
2	5.97E 01	2.17E 03	3.14E 02	1.10E 02	0.	0.	0.	0.	0.	0.	0.
3	5.87E 01	7.09E 01	1.35E 01	1.35E 02	0.	0.	0.	0.	0.	0.	0.
4	5.87E 01	2.74E 00	2.46E 01	0.	0.	0.	0.	0.	0.	0.	0.
5	3.43E 01	1.10E 01	0.	0.	0.	0.	0.	0.	0.	0.	0.
6	1.43E 02	1.06E 04	0.	0.	0.	0.	0.	0.	0.	0.	0.

TOTAL AND CUT-OFF POSSELAND MEAN FREE PATHS (CM)

TEMPERATURE (DEG. K)	C	DENSITY (TIMES NORMAL)									
		1.0E 01	1.0E 00	1.0E 01	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07		
6000.	TOTAL	2.90E 01	6.51E 02	1.64E 04	6.73E 05	1.03E 07	2.54E 08	1.07E 10	5.32E 11		
	CONT.	7.31E 01	6.53E 03	8.85E 05	4.03E 07	6.12E 09	6.77E 09	1.07E 11	2.30E 12		
	1	2.90E 01	6.51E 02	1.64E 04	2.19E 04	1.51E 04	6.52E-01	1.20E-02	1.19E-03		
	2	2.90E 01	6.51E 02	2.69E 03	2.16E 02	1.79E-01	1.31E-03	1.15E-04	3.74E-05		
	3	2.90E 01	6.51E 02	2.73E 01	4.98E-02	2.03E-01	1.29E-05	3.75E-06	0.		
	4	2.69E 01	5.07E 00	1.37E 04	3.13E-04	1.23E-06	4.24E-07	0.	0.		
	5	3.33E-01	2.13E-01	3.85E-05	1.31E-07	5.92E-08	0.	0.	0.		
	6	3.10E-02	1.55E-04	1.51E-09	1.66E-08	0.	0.	0.	0.		
7000.	TOTAL	9.79E 00	2.52E 02	6.47E 03	1.52E 05	4.29E 06	1.70E 09	6.94E 09	9.37E 10		
	CONT.	6.63E 01	3.73E 03	1.02E 05	1.79E 06	3.45E 07	6.21E 08	9.51E 09	1.19E 11		
	1	9.79E 00	2.52E 02	6.47E 03	3.07E 04	4.55E 01	6.73E-01	4.71E 00	9.94E-01		
	2	9.79E 00	2.52E 02	2.63E 03	5.59E 01	6.14E-01	4.73E-01	9.54E-02	1.23E-03		
	3	9.79E 00	1.98E 02	6.57E 01	3.09E-01	5.09E-02	9.45E-03	1.18E-04	0.		
	4	9.79E 00	2.01E 01	5.35E-02	1.42E-04	1.30E-03	1.11E-05	0.	0.		
	5	5.12E 00	2.39E-01	5.97E-04	2.33E-06	1.78E-06	0.	0.	0.		
	6	7.13E-02	7.41E-05	4.46E-07	2.39E-07	0.	0.	0.	0.		
8000.	TOTAL	4.01E 00	1.05E 02	2.67E 03	7.49E 04	2.55E 06	5.43E 07	9.46E 08	1.23E 10		
	CONT.	2.40E 01	5.31E 02	1.34E 04	2.99E 05	5.33E 06	7.94E 07	1.01E 09	1.33E 10		
	1	4.01E 00	1.05E 02	2.67E 03	3.54E 04	6.41E 01	1.31E 03	1.40E 01	5.63E 00		
	2	4.01E 00	1.05E 02	2.00E 03	3.49E 01	1.29E-01	1.31E 00	4.56E-01	1.93E-02		
	3	4.01E 00	1.05E 02	2.77E 02	6.09E-01	1.29E-01	4.23E-02	1.57E-03	0.		
	4	4.01E 00	3.20E 01	1.90E-01	1.39E-02	4.20E-03	2.01E-04	0.	0.		
	5	3.53E 00	1.09E-01	3.66E-03	4.23E-04	1.99E-05	0.	0.	0.		
	6	1.14E-01	4.44E-04	6.34E-05	2.12E-06	0.	0.	0.	0.		
9000.	TOTAL	2.10E 00	5.41E 01	1.67E 03	6.44E 04	9.07E 05	1.31E 07	1.93E 09	3.99E 09		
	CONT.	6.63E 00	1.53E 02	3.94E 03	7.42E 04	1.12E 05	1.43E 07	1.93E 09	4.01E 09		
	1	2.10E 00	5.41E 01	1.67E 03	4.19E 04	2.70E-01	2.91E 00	3.57E 01	3.51E 01		
	2	2.10E 00	5.41E 01	1.67E 03	5.21E 01	2.70E-01	2.91E 00	1.75E 00	2.61E-01		
	3	2.10E 00	5.41E 01	3.21E 02	2.69E-02	2.70E-01	1.39E-01	1.74E-02	0.		
	4	2.17E 00	3.50E 01	4.04E-01	2.69E-02	1.23E-02	1.39E-03	0.	0.		
	5	2.10E 00	1.37E-01	2.80E-03	1.27E-03	1.30E-04	0.	0.	0.		
	6	2.01E-01	1.73E-03	1.90E-04	1.29E-05	0.	0.	0.	0.		
10000.	TOTAL	1.26E 00	3.24E 01	8.85E 02	1.91E 04	2.93E 05	4.09E 06	7.54E 07	3.13E 09		
	CONT.	2.79E 00	6.94E 01	1.39E 03	2.26E 04	3.09E 05	4.14E 06	7.57E 07	3.13E 09		
	1	1.26E 00	3.24E 01	8.85E 02	1.91E 04	5.70E 03	6.04E 05	1.11E 07	2.65E 01		
	2	1.26E 00	3.24E 01	8.85E 02	5.72E 02	4.92E-01	6.04E 00	7.12E 00	3.39E-07		
	3	1.26E 00	3.24E 01	4.56E 02	4.19E-02	4.92E-01	3.91E-01	1.27E-01	0.		
	4	1.26E 00	3.24E 01	4.07E-01	4.19E-02	3.04E-02	7.08E-03	0.	0.		
	5	1.26E 00	1.96E-01	5.52E-03	3.79E-03	1.77E-03	0.	0.	0.		
	6	4.54E-01	2.04E-03	3.39E-04	1.69E-04	0.	0.	0.	0.		

TOTAL AND CUT-OFF ROSSELAND MEAN FREE PATHS (CM)

TEMPERATURE C (DEG. K)	TOTAL COUNT	DENSITY (TIMES NORMAL)									
		1.0E 01	1.0E 00	1.0E 01	1.0E 02	1.0E 03	1.0E 04	1.0E 05	1.0E 06	1.0E 07	1.0E 08
11000.	TOTAL	3.26E-01	2.09E 01	4.75E 02	7.99E 03	1.09E 05	1.09E 05	1.79E 06	5.59E 07	4.02E 09	4.02E 09
	COUNT	1.52E 00	3.26E 01	5.69E 02	9.30E 03	1.10E 05	1.10E 05	1.79E 06	5.60E 07	4.02E 09	4.02E 09
	1	8.26E-01	2.08E 01	4.75E 02	7.99E 03	2.52E 04	1.01E 03	1.01E 03	3.61E 04	5.70E 06	5.70E 06
	2	8.26E-01	2.08E 01	4.75E 02	7.99E 03	2.52E 04	1.01E 03	1.01E 03	3.61E 04	5.70E 06	5.70E 06
	3	8.26E-01	2.08E 01	4.75E 02	7.99E 03	2.52E 04	1.01E 03	1.01E 03	3.61E 04	5.70E 06	5.70E 06
	4	8.26E-01	2.08E 01	4.75E 02	7.99E 03	2.52E 04	1.01E 03	1.01E 03	3.61E 04	5.70E 06	5.70E 06
12000.	TOTAL	5.53E-01	1.29E 01	2.44E 02	3.51E 03	5.16E 04	5.16E 04	1.16E 06	6.20E 07	5.53E 09	5.53E 09
	COUNT	5.53E-01	1.29E 01	2.44E 02	3.51E 03	5.16E 04	5.16E 04	1.16E 06	6.20E 07	5.53E 09	5.53E 09
	1	5.53E-01	1.29E 01	2.44E 02	3.51E 03	5.16E 04	5.16E 04	1.16E 06	6.20E 07	5.53E 09	5.53E 09
	2	5.53E-01	1.29E 01	2.44E 02	3.51E 03	5.16E 04	5.16E 04	1.16E 06	6.20E 07	5.53E 09	5.53E 09
	3	5.53E-01	1.29E 01	2.44E 02	3.51E 03	5.16E 04	5.16E 04	1.16E 06	6.20E 07	5.53E 09	5.53E 09
	4	5.53E-01	1.29E 01	2.44E 02	3.51E 03	5.16E 04	5.16E 04	1.16E 06	6.20E 07	5.53E 09	5.53E 09
13000.	TOTAL	3.71E-01	7.36E 00	1.29E 02	1.79E 03	3.06E 04	3.06E 04	1.25E 06	7.92E 07	7.70E 09	7.70E 09
	COUNT	3.71E-01	7.36E 00	1.29E 02	1.79E 03	3.06E 04	3.06E 04	1.25E 06	7.92E 07	7.70E 09	7.70E 09
	1	3.71E-01	7.36E 00	1.29E 02	1.79E 03	3.06E 04	3.06E 04	1.25E 06	7.92E 07	7.70E 09	7.70E 09
	2	3.71E-01	7.36E 00	1.29E 02	1.79E 03	3.06E 04	3.06E 04	1.25E 06	7.92E 07	7.70E 09	7.70E 09
	3	3.71E-01	7.36E 00	1.29E 02	1.79E 03	3.06E 04	3.06E 04	1.25E 06	7.92E 07	7.70E 09	7.70E 09
	4	3.71E-01	7.36E 00	1.29E 02	1.79E 03	3.06E 04	3.06E 04	1.25E 06	7.92E 07	7.70E 09	7.70E 09
14000.	TOTAL	2.53E-01	4.92E 00	7.21E 01	1.04E 03	2.25E 04	2.25E 04	1.14E 06	1.03E 09	9.39E 09	9.39E 09
	COUNT	2.53E-01	4.92E 00	7.21E 01	1.04E 03	2.25E 04	2.25E 04	1.14E 06	1.03E 09	9.39E 09	9.39E 09
	1	2.53E-01	4.92E 00	7.21E 01	1.04E 03	2.25E 04	2.25E 04	1.14E 06	1.03E 09	9.39E 09	9.39E 09
	2	2.53E-01	4.92E 00	7.21E 01	1.04E 03	2.25E 04	2.25E 04	1.14E 06	1.03E 09	9.39E 09	9.39E 09
	3	2.53E-01	4.92E 00	7.21E 01	1.04E 03	2.25E 04	2.25E 04	1.14E 06	1.03E 09	9.39E 09	9.39E 09
	4	2.53E-01	4.92E 00	7.21E 01	1.04E 03	2.25E 04	2.25E 04	1.14E 06	1.03E 09	9.39E 09	9.39E 09
15000.	TOTAL	1.75E-01	3.02E 00	4.33E 01	6.97E 02	2.00E 04	2.00E 04	1.37E 06	1.29E 09	1.12E 10	1.12E 10
	COUNT	1.75E-01	3.02E 00	4.33E 01	6.97E 02	2.00E 04	2.00E 04	1.37E 06	1.29E 09	1.12E 10	1.12E 10
	1	1.75E-01	3.02E 00	4.33E 01	6.97E 02	2.00E 04	2.00E 04	1.37E 06	1.29E 09	1.12E 10	1.12E 10
	2	1.75E-01	3.02E 00	4.33E 01	6.97E 02	2.00E 04	2.00E 04	1.37E 06	1.29E 09	1.12E 10	1.12E 10
	3	1.75E-01	3.02E 00	4.33E 01	6.97E 02	2.00E 04	2.00E 04	1.37E 06	1.29E 09	1.12E 10	1.12E 10
	4	1.75E-01	3.02E 00	4.33E 01	6.97E 02	2.00E 04	2.00E 04	1.37E 06	1.29E 09	1.12E 10	1.12E 10

TOTAL AND CUT-OFF RUSSELAND MEAN FREE PATHS (CM)

TEMPERATURE C (DEG. K)	DENSITY (TIMES NORMAL)								
	1.0E 01	1.0E 00	1.0E -01	10.0E-02	10.0E-03	10.0E-04	10.0E-05	10.0E-06	10.0E-07
15000.	1.23E-01	1.36E 00	2.31E 01	5.12E 02	2.02E 04	1.56E 04	1.55E 04	1.55E 04	9.04E 09
TOTAL CONT.	1.31E-01	1.53E 00	2.91E 01	5.12E 02	2.02E 04	1.56E 04	1.55E 04	1.55E 04	9.04E 09
1	1.23E-01	1.36E 00	2.31E 01	5.12E 02	2.02E 04	1.56E 04	1.55E 04	1.55E 04	9.04E 09
2	1.23E-01	1.36E 00	2.31E 01	5.12E 02	2.02E 04	1.56E 04	1.55E 04	1.55E 04	9.04E 09
3	1.23E-01	1.36E 00	2.31E 01	5.12E 02	2.02E 04	1.56E 04	1.55E 04	1.55E 04	9.04E 09
4	1.23E-01	1.36E 00	2.31E 01	5.12E 02	2.02E 04	1.56E 04	1.55E 04	1.55E 04	9.04E 09
5	1.23E-01	1.36E 00	2.31E 01	5.12E 02	2.02E 04	1.56E 04	1.55E 04	1.55E 04	9.04E 09
6	1.23E-01	1.36E 00	2.31E 01	5.12E 02	2.02E 04	1.56E 04	1.55E 04	1.55E 04	9.04E 09
17500.	9.72E-02	1.32E 00	1.95E 01	4.24E 02	2.18E 04	1.92E 04	1.55E 04	1.55E 04	9.04E 09
TOTAL CONT.	9.04E-02	1.33E 00	1.95E 01	4.24E 02	2.18E 04	1.92E 04	1.55E 04	1.55E 04	9.04E 09
1	9.72E-02	1.32E 00	1.95E 01	4.24E 02	2.18E 04	1.92E 04	1.55E 04	1.55E 04	9.04E 09
2	9.72E-02	1.32E 00	1.95E 01	4.24E 02	2.18E 04	1.92E 04	1.55E 04	1.55E 04	9.04E 09
3	9.72E-02	1.32E 00	1.95E 01	4.24E 02	2.18E 04	1.92E 04	1.55E 04	1.55E 04	9.04E 09
4	9.72E-02	1.32E 00	1.95E 01	4.24E 02	2.18E 04	1.92E 04	1.55E 04	1.55E 04	9.04E 09
5	9.72E-02	1.32E 00	1.95E 01	4.24E 02	2.18E 04	1.92E 04	1.55E 04	1.55E 04	9.04E 09
6	9.72E-02	1.32E 00	1.95E 01	4.24E 02	2.18E 04	1.92E 04	1.55E 04	1.55E 04	9.04E 09
18000.	6.14E-02	9.31E-01	1.45E 01	3.37E 02	2.44E 04	2.14E 04	1.54E 04	1.54E 04	4.32E 09
TOTAL CONT.	6.44E-02	9.31E-01	1.45E 01	3.37E 02	2.44E 04	2.14E 04	1.54E 04	1.54E 04	4.32E 09
1	6.14E-02	9.31E-01	1.45E 01	3.37E 02	2.44E 04	2.14E 04	1.54E 04	1.54E 04	4.32E 09
2	6.14E-02	9.31E-01	1.45E 01	3.37E 02	2.44E 04	2.14E 04	1.54E 04	1.54E 04	4.32E 09
3	6.14E-02	9.31E-01	1.45E 01	3.37E 02	2.44E 04	2.14E 04	1.54E 04	1.54E 04	4.32E 09
4	6.14E-02	9.31E-01	1.45E 01	3.37E 02	2.44E 04	2.14E 04	1.54E 04	1.54E 04	4.32E 09
5	6.14E-02	9.31E-01	1.45E 01	3.37E 02	2.44E 04	2.14E 04	1.54E 04	1.54E 04	4.32E 09
6	6.14E-02	9.31E-01	1.45E 01	3.37E 02	2.44E 04	2.14E 04	1.54E 04	1.54E 04	4.32E 09

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